



hbl, brtl

Storage1033

Dovecote and the aviary :



3 9153 00538259 5



5H
46
.D5
1801

THE DOVECOTE

AND

THE AVIARY:

BEING

SKETCHES OF THE NATURAL HISTORY OF PIGEONS AND
OTHER DOMESTIC BIRDS IN A CAPTIVE STATE.

WITH HINTS FOR THEIR MANAGEMENT.

BY REV. E. S. DIXON, M.A.

AUTHOR OF "ORNAMENTAL AND DOMESTIC POULTRY."

LONDON:

WM. S. ORR & CO., AMEN CORNER, PATERNOSTER ROW.

Storage
1033



TO

THE EARL OF DERBY,

PRESIDENT OF THE ZOOLOGICAL SOCIETY OF LONDON,
ETC., ETC., ETC.,

WHOSE DISTINGUISHED AID TO ZOOLOGY

HAS BEEN SO LIBERAL, CONTINUOUS, AND EFFICIENT,

THE PRESENT VOLUME

IS, BY PERMISSION, DEDICATED,

BY HIS LORDSHIP'S RESPECTFUL AND OBLIGED SERVANT,

THE AUTHOR.

2/14/50

Gift

132761

ADVERTISEMENT.

THE researches requisite to complete the volume on "Ornamental and Domestic Poultry" naturally put the writer in possession of many a clue towards the better understanding of the natures of other domestic, captive, and familiar birds. The following pages may therefore be looked upon as an almost necessary sequel to the former work. The object has been to ascertain the place which certain genera and species are likely eventually to take, in respect to their association with mankind, and to obtain a cognizance of the circumstances most immediately connected with that relationship. The writer is fully aware that it is not easy for him to answer and explain several of the objections that may be urged against the theoretical views he has ventured to state; but he is also both extensively read and practically experienced in the still greater difficulties and inconsistencies of the progressive hypothesis of domesticated creatures. What zoology, in its subservience to the requirements of man, now wants, is a series of widely-extended experiments: unknown zoological capabilities, and the results of untried zoological combinations are, at the present date, as little to be guessed at as were those of chemistry a hundred years

ago. The experiments are commencing, and the writer is glad that he has been one instrument in exciting their pursuit. The whole subject is, just now, of very increasing interest. The industrious student and the unprejudiced discoverer may yet gather not only facts, but fame.

Three of these Essays first appeared in "Bell's Weekly Messenger," whence they were immediately transferred to the "Morning Herald," and perhaps to other prints; the rest is offered to the reader's consideration for the first time. The necessity of being brief will excuse the author for here acknowledging, in general terms only, the kind assistance which has been afforded him by very many friends and correspondents.

CRINGLEFORD HALL, NORWICH,
April, 1851.

CONTENTS.

THE DOVECOTE.

CHAPTER I.

INTRODUCTORY.

PAGE

Pigeons differently constituted to other domestic birds.—Interest attached to them.—Pets of childhood.—Paradoxical increase.—Effect of captivity on the productiveness of some birds.—Beauty of the Columbidae.—Earliest history.—The olive branch.—Arab legend.—Ancient domestication.—Feral Pigeons.—Domestic Pigeons long established in America.—Not found among the Egyptian monuments.—Ancient pigeon-fanciers.—Messenger birds.—Agents of superstition.—Misrepresentation.—Use during sieges.—Ancient pigeon-houses and fattening-places.—Cato a pigeon-fatter.—The Mosaic Doves of the Capitol.—Friendship of the kestrel.—Charms for dovecotes.—Effectual attractions.—Patronized by commercial people 1

CHAPTER II.

MANAGEMENT OF PIGEONS.

Feed their own young.—New-hatched squabs.—The pigeon-loft.—The trap.—Nesting-places.—Food and luxuries.—Water-supply.—Out-door pigeon-houses.—Pole-house.—Dovecotes.—Pigeon law.—Varro's dovecote.—Stocking the loft.—Commencement of breeding.—Laying.—Incubation.—Merits of the cock.—Nutrition and growth of the squabs.—Pairing of Pigeons.—Two hens will pair together.—Widowed Pigeons.—Young birds. Differences among the eggs and the very young.—Providential adaptations 34

CHAPTER III.

CLASSIFICATION OF PIGEONS.

PAGE

Proposed classes.—Ambiguous nomenclature.—The question of origin.—Ground of the received opinion little investigated by naturalists.—Estimate of Temminck's authority.—Difficulties and doubts suggested by the accounts of former ornithologists.—The reader to sum up the evidence.—Scheme of arrangement . 70

CHAPTER IV.

DOMESTIC PIGEONS.

FANTAILS; their powers.—Effects of crossing.—Accident to one.—Pigeon Paon.—The lean poet of Cos.—Runts.—Pigeon mon-dains.—Comparison of eggs and weights.—Synonyms of Runts.—Runts at sea.—Rodney's bantam.—Peculiarities of Runts.—Runts in Italy.—Effects of crossing.—Trumpeters.—Archangel Pigeons.—Nuns.—Jacobines.—Columbarian distinctions.—Supposed caricature.—Turbits.—Temminck's ideas.—Owls.—Progress of the young.—Rapid growth.—Barbs.—Tumblers.—Their performance in the air.—Feats of wing.—The Almond.—Peculiarity of form.—Learning to tumble.—Baldpates.—Helmets.—Powters and Croppers.—Their carriage, flight, and colouring.—Defects and remedies.—Crosses.—Carriers.—Castle of the birds.—How they find their way.—Phrenological hypothesis.—Carriers in Turkey.—Sir John Ross's birds.—Explanation.—Antwerp Carriers.—De Beranger.—English Carriers.—Oriental origin.—Lace and Frizzled Pigeons.—Eggs and young of the Columbidae.—Quarrels and attachments.—Mating.—Love of home.—Food.—Merits of the Runts.—Etymology of the Trumpeter . . . 86

CHAPTER V.

PIGEONS WHICH ARE BOTH DOMESTIC AND WILD.

The Blue Rock Dove.—Varro's account.—Distinguished from Dovehouse Pigeons.—Disposition.—Experiment.—Gregariousness.—Crossing with Carriers.—Less kept than formerly.—Mari-

time haunts.—Colonel Napier.—Rock Pigeons in Sutherland.—	
Differ in habits from Fancy Pigeons.—Characteristic plumage.—	
Productiveness.—Quality of flesh.—Dovehouse Pigeon.—Indian	
Rock Pigeon.—Mr. Blyth's account.—Columba affinis.—Question	
of distinctness.—Pigeon matches.—Apology.—Numbers shot.—	
Pigeon-shooting in France.—Temperature of the bird.—Value	
as nurses.—The Collared Turtle.—Native haunts.—Disposition.	
—How far domestic.—Escapades.—Food.—Pairing.—Nesting	
and incubation.—Education of the young.—Severe discipline.—	
Watchfulness.—Voices.—Interesting pets.—Plumage and varie-	
ties.—Hybrids.—Heralds of Peace.—The Irish Dove . . .	150

CHAPTER VI.

PIGEONS NOT CAPABLE OF TRUE DOMESTICATION.

The Stockdove.—Natural instincts.—The Ring Dove.—Mischief	
done by.—The Turtle Dove.—Peculiarities.—Australian Pigeons.	
—Whether domesticable.—The Wonga-Wonga.—Claims to no-	
tice.—Mr. Gould's opinion.—Bronze-winged Pigeons.—Native	
habits.—Water guides.—Temminck's account.—Plumage.—In-	
terest of Australian Pigeons.—Have bred in confinement.—	
Captain Sturt's accounts.—Abstinence from water.—Aid in	
extremities.—Ventriloquist Pigeon.—Geopelia tranquilla.—	
Harlequin Bronze-wing.—First discovery.—Food and habits.—	
Their doings at Knowsley.—Graceful Ground Dove.—Minute	
birds and beasts of Australia.—Mr. Gould's account.—Crested	
Australian Pigeons.—Their breeding at Knowsley.—Habits in	
captivity.—The Passenger Pigeon.—Disposition.—Escaped birds.	
—The Long-tailed Senegal Dove.—Their song.—Synonyms.—	
Aviary management	187

THE AVIARY.

CHAPTER I.

THE CRACIDÆ—CURASSOWS.

PAGE

Want of precise information.—Expected results from the Zoological Society.—Its great advantages.—Disappointments.—Causes thereof.—Erroneous Assumptions.—The limited power of Man.—Domesticability of Cracidæ.—Former attempts.—Natural disposition of the bird.—Imported long ago.—Ill success at the Zoological Gardens.—The Cracidæ at Knowsley.—Arboreal habits.—Of tender constitution.—Curassows at home.—Tame, not domesticated.—Not common in S. America.—M. Ameshoff's *festin d'Heliogabale*.—Eggs 223

CHAPTER II.

THE CRACIDÆ—PENELOPES (COMMONLY GUANS).

Difficulty of discriminating the species.—State in which the young are hatched.—Easily tamed.—Produce few young in a tame state.—Mode of distinguishing species.—Organ of voice.—Its efficiency.—The Cracidæ as poultry.—Mr. Bennett's and Mr. Martin's hopes.—Cause of failure.—Have had a fair trial.—Curassow dinner.—Cracidæ in Holland.—Temminck's expectations; plausible but unfounded.—Determine on an experiment.—Unsuitability of South American organisms to Great Britain.—Instances.—Few exceptions.—The reversed seasons of the north and south hemispheres one cause.—Mr. Darwin's account.—Guans at the Surrey Gardens.—Their native habits and diet.—Our own mishaps.—Troublesome tameness of the birds.—Tricks and dangers.—Impudence and capriciousness.—Possible profitableness!—Narrative of a coadjutor.—His ill-success.—Our own.—Habits of the Eye-browed Guan.—Amount of success at Knowsley 245

CHAPTER III.

THE CRESTED TURKEY.

	PAGE
Imaginary and doubtful animals.—Crested Turkeys formerly in Holland.—None now produced in English poultry-yards.—Still extant in Central America.—Of two kinds.—Not a freak of nature, but distinct species.—Desiderata in our menageries . . .	274

CHAPTER IV.

THE WATER HEN.

Undomesticable, and of paradoxical habits.—Their familiar aution.—Attracted by luxuriant water-weeds.—Will have their own way.—Mode of travelling under water.—And on the surface.—Post mortem.—Proofs of creative design.—Habits of the young.—Rare water-rail.—Aldrovandi's uncertainty.—Versatility of Water Hens.—Modes of escape.—Water Hens in St. James's Park.—Water Hens about country houses.—Odd noises.—Activity of the young.—Usual nesting-places.—Prolific breeders	280
--	-----

CHAPTER V.

KINGFISHERS.

Halcyon of the ancients; what?—Aldrovandi's figures and descriptions.—Nest of Halcyon.—Haunts and habits of the Kingfisher.—Anecdote.—How far destructive to fish.—To procure young birds.—To rear and feed them.—Captive Kingfishers.—Mr. Rayner's aviary.—Diet and habits of Kingfishers there.—Mode of eating.—Their pugnacity.—Destructiveness of a Heron.—Unsociability of Kingfishers.—Management in a captive state.—African Kinghunters.—Australian Kingfishers.—The Laughing Jackasses	297
---	-----

CHAPTER VI.

THE GRALLATOIRES, OR WADERS, IN CAPTIVITY.

PAGE

Their tameable disposition.—Fallacy of generalizing too much.—The White Stork and the Black.—Gigantic Indian Cranes.—Cruelty the companion of ignorance—Strange forms well contrived.—The Lapwing and the smaller Waders.—The Common Crane.—The Stanley Crane.—The Spoonbill.—The Common Heron.—Dr. Neill's Heron.—His proceedings, and attempts to breed.—Unfortunate end 313

CHAPTER VII.

THE BITTERN.

Its temper.—Voice.—Nesting habits and haunts.—The Marram banks.—The district which they skirt.—The Bittern, its home.—Money value.—Mr. Jecks's Bittern.—Its manners in captivity 325

CHAPTER VIII.

THE WHITE STORK.

A model of virtue.—Ancient instances and modern explanations.—Gratitude.—The charm of ideality.—Captive Storks best in pairs.—The Dutch and English modes of pinioning.—Delight at liberation.—Jealousy, muteness, and politeness.—Mode of fishing.—Diet.—Services rendered.—Sad misadventure.—Habits in captivity.—Congregation of Storks in Sweden.—Antiquated notions.—The Stork's departure and return 335

CHAPTER IX.

THE EMEU.

Pets for princes.—Orthography of the name.—Confounded with the Cassowary.—Game laws in Australia.—Anticipated extinction of the Emeu.—Operating causes.—Self-denial of the aborigines.—Duty of the present Australians to preserve the Emeu.

	PAGE
—Ease with which it may be stalked.—Proposed Emeu parks.	
—Little hope for future Emeus.—The refuge of domestication.—	
Dinornithes, or Wonder Birds.—Their discovery and history.—	
Adaptation of the various species to their locality in New Zealand.—Their great variety.—Their recent existence.—How congregated in New Zealand.—Professor Owen's conjecture.—Any hope that they still survive?—A few glimpses of evidence.—The latest news.—Habits and propagation of the Emeu.—The Emeus at Knowsley.—Follow the seasons of the <i>southern</i> hemisphere.—Injudicious proceedings.—Their diet.—Peculiarities of their plumage	352

CHAPTER X.

THE COMMON OR DACTYL-SOUNDING QUAIL.

Emblem of mediocrity.—Explanation of specific name.—Call note.—Their migrations.—Immense multitudes.—Their destruction.—Ancient history.—Identical with the Quail of Scripture.—Do not universally migrate.—Welcome feasts afforded by their flight.—Quails in captivity.—Their fate in an aviary.—Distinction between Quails and Partridges.—Unvarying plumage throughout the Old World.—Whether polygamous.—Careless of their young.—Their double moult.—Breeding in confinement.—Diet.—Subject to epilepsy.—Estimation as food.—Modes of cooking and of fattening.—Quail fights.—Distinction of sex.—Pick-werwick.—Quails in process of fattening.—Necessaries of life	374
---	-----

CHAPTER XI.

THE ORTOLAN.

The fattening of wild birds largely practised by the ancients.—Good old-fashioned fare.—Mock and true Ortolans.—Not native Britons.—Merits as cage birds.—Their song, plumage, and diet.—Variable states of fatness.—Effects of revolutions.— Beau Tibbs and his Ortolan	394
--	-----

CHAPTER XII.

GULLS IN CAPTIVITY, AND GULLERIES.

PAGE

Desirable pets.—Longevity.—Discipline of new-caught birds.—
 Reconciliations and confidences.—Good-natured, not stupid.—
 Hardy and accommodating, but not ascetic.—Requisites for a
 Gullery.—Voracity of Gulls.—Black-headed Gull.—Its mode of
 nesting.—Its eggs.—Domesticability of Gulls.—Their capture.
 —Application of the method to Geese.—The birds kept in Dr.
 Neill's Gullery.—Docility of Cormorants.—Chinese Fishing
 Cormorants.—Albatrosses.—Their capture.—Nesting-places.—
 Battues.—Dangers of a calm.—Principle of flight 402

CHAPTER XIII.

THE SANDWICH ISLAND GOOSE.

Stay-at-home travellers.—Home of the Sandwich Bernicle.—
 Natural disposition.—Its claims on our patronage.—Natural
 perfume.—Voice.—First historial notice.—Erroneous nomen-
 clature.—Obstinate pugnacity.—A parallel.—Diet.—Weight.
 —Plumage.—Increase 426

CHAPTER XIV.

CONCLUDING DIALOGUE.—THE NIGHTINGALE.

A country walk.—Local curiosities.—An agreeable surprise.—
 Limits of the Nightingale's migrations.—Topographical caprice.—
 The ravisher of Nightingales.—Particulars of capture.—Subse-
 quent management.—Touching song and wakefulness of the bird.
 Antique notions.—Effects of a Nightingale diet.—Enter Bird-
 catcher.—Rural simplicity.—Diamond cut diamond.—The bird is
 caught.—Amount of its accomplishments.—Modes of causing
 their exhibition.—Conclusion 436

THE DOVECOTE

AND

THE AVIARY.

THE DOVECOTE.

CHAPTER I.

INTRODUCTORY.

Pigeons differently constituted to other domestic birds.—Interest attached to them.—Pets of childhood.—Paradoxical increase.—Effect of captivity on the productiveness of some birds.—Beauty of the Columbidae.—Earliest history.—The olive branch.—Arab legend.—Ancient domestication.—Feral pigeons.—Domestic pigeons long established in America.—Not found among the Egyptian monuments.—Ancient pigeon-fanciers.—Messenger birds.—Agents of superstition.—Misrepresentation.—Use during sieges.—Ancient pigeon-houses and fatting-places.—Cato a pigeon-fatter.—The Mosaic doves of the Capitol.—Friendship of the kestrel.—Charms for dovecotes.—Effectual attractions.—Patronized by commercial people.

WHAT a wide gulph separates the Pigeons from all our other captive or domestic birds! How completely discrepant are all their modes of increase and action, their whole system of life, their very mind and affections! Compare them with the gallinaceous tribes, and they scarcely seem to belong to the same class of beings. These walk the ground, those glide on air; these lazily gorge and fatten at home, those traverse whole districts and cross wide seas to obtain an independent supply of nutriment. The *Gallinaceæ* are sensual and tyrannical; though gallant and chivalrous, yet they are faithless; they are pugnacious, even murderous; and life-destroyers for the gratification of their appetite merely. The *Columbidæ* are amorous, beseeching, full of affectionate attachment, quarrelling solely in defence of their mates or their young, content to subsist on fruits

and grain, or tender herbs. Force, vanity, aggression, and greediness pertain to the one class; grace, agility, sentiment, devotion, and temperance to the other. The gallinaceous birds seem to be representatives of the fervid and selfish passions of the East; the Doves to have been created as types almost of Christian virtue. To suffer the onslaughts of the cruel; to bear, and, if possible, to escape, but neither to attack nor to revenge; to adhere to chastity, even when gratifying their natural affections; to submit to an equal division of the labour of tending the helpless young; to prefer a settled home to indulgence in capricious wanderings—these are a few out of the many attributes which have conciliated towards them the approving regard of mankind, and even perhaps caused them to be honoured by being mysteriously connected with some of the most meaning ceremonies and important events that are mentioned in sacred history.

And yet, at the present day, a love for Pigeons is considered rather low, a taste scarcely the thing to be indulged in, a study of a department of nature from which little can be learned, and, as a hobby, decidedly out of fashion. But any pursuit may be vulgarized and made the means of evil, by being taken up from base motives and in an unworthy manner; and, on the other hand, even an indulgence in the Pigeon fancy may be so regulated and conducted as to afford interest and instruction to the young, and a healthy relaxation and matter for speculative inquiry to their seniors.

What boy, whose parents permitted him to keep ever so few pairs of Pigeons, forgets in after days the pleasing anxieties of which they were the source—the occupation for spare half-hours which they never failed

to afford? Well do we remember our first two pigeon-houses, of widely-diverse construction; the earliest effort of contrivance being an old tea-chest fixed against a wall, with the complicated machinery of a falling platform, or "trap," in front, to be drawn up by a half-penny-worth of string, so as to secure the inmates, or their visitors, for a learned inspection; the second, a more ambitious piece of architecture, namely, a tub mounted on the top of a short scaffold-pole, divided internally into apartments, each of some cubic inches capacity, and each with a little landing-place projecting for the birds to alight upon, after their meal on the ground, or their circling exercise above the house-tops. And the wonderment to behold the process of fixing this lofty structure firm and upright in its site in the back-yard! How the man dug an awful hole in the ground, from which he could with difficulty shovel out the earth for the crowding, and the pushing, and the peeping in of us children and the maids—how the tall structure was, by the combined efforts of all present, slowly set upright—how three or four vast flint-stones (rocks they seemed to us to be) were jammed in at the foot with a beetle borrowed from the pavioir that lived up a yard in our street—how, when earth and pebbles had been duly added to make all smooth and tight, we retired a few yards and looked up with admiration—and when at last the short ladder was brought wherewith to ascend, which we did without delay, and inspect the lockers, Smeaton, gazing from the top of the Eddystone Lighthouse, or Stephenson darting on a locomotive engine through the Menai Tube, might enjoy a pride higher in degree, but not stronger in intenseness!

And then, the strange events necessarily occurring to us. (The plural is used because no boy pigeon-keeper looks after his birds without a companion or two.) The severe countenance with which our neighbour and landlord, hitherto beaming with benignant smiles, now greeted us as we were walking over the tiles of the outhouses in pursuit of an old "Duffer" with a clipped wing; the astonishment of a respectable shoemaker on the other side of the street, to see a boy's face peeping over the ridge of the opposite roof, with the air of Cortes surveying the Pacific Ocean from the summit of the Andes, rather than with the consciousness of being the mischievous urchin that he was; the arrival of a strange Pigeon with a sore and naked breast; the bold resolve to use decisive surgery, and to decapitate it, lest the evil should prove contagious; the trepidation of the maid who held the body, while we secured the head and wielded the fatal chopper; the universal horror that the body should flap, and flutter, and palpitate for a while *after* the operation was complete; the enigmatical illustration from English history, "King Charles walked and talked; half an hour after, his head was off," uttered without proper pause at the semicolon or comma—these, and a whole chronicle full of such-like accidents, soon showed us that life, to the young, is an onward journey through an unexplored country, every step in which leads to some discovery, and opens to us a pleasant or a repulsive prospect. In maturer age, pitfalls, famishing deserts, and entangled wildernesses, or the flattering and deceptive mirage, showing signs of refreshing waters where drought alone exists, may await our advancing footsteps; or it may be our better fate to progress

through glorious scenes, and mount to commanding eminences, still excited in either case by fresh and new adventure. Progressive must our journey ever continue to be. Nor even in old age need our interest in the novelties of existence flag, if we have but duties and proper pursuits in this world, and a religious hope for the next.

But Pigeons are useful, not as mere pets for childhood and diversions for men, but as affording, by their extraordinary and most paradoxical increase, a valuable supply of food both to man and to other carnivorous creatures. It seems strange that a creature which brings two at most at a birth, so to speak, should multiply rapidly into countless flocks; and that the species which is of all the most innumerable, darkening the sky from one point of the horizon to the opposite visible verge, and stretching its living streams no one knows how many miles beyond it each way—small detachments from whose main army supply some of the American cities with poultry by cart-loads, till the inhabitants almost loathe the sight of the dish, good as it is, upon their tables—should yet lay no more than two, and frequently only a single egg, and still more frequently rear but a single chick*, while

* “My friend Dr. Bachman says, in a note sent to me, ‘In the more cultivated parts of the United States, the Passenger Pigeon no longer breeds in communities. I have secured many nests scattered throughout the woods, seldom near each other. They were built close to the stems of thin but tall pine trees (*Pinus strobus*), and were composed of a few sticks; the eggs invariably two, and white.’ There is frequently but one young bird in the nest, probably from the loose manner in which it has been constructed, so that either a young bird or an egg drops out. Indeed, I have found both at the foot of the tree. This is no doubt accidental, and not to be attributed to a habit which the bird may be supposed to have of throw-

the Partridge, the Turkey, the Guinea-fowl, and even the Hen, notwithstanding the multitudinous broods they lead forth, are not nearly so abundant, the closest approach to them among gallinaceous birds being perhaps made by the Quail. But a due attention to the growth, mode of rearing, and subsequent proceedings, of the young Pigeons go far to explain how so vast and anomalous a result is obtained from means apparently so inadequate, and which thus becomes less puzzling to us than the existence of immense flocks of Sea-fowl, of species which never lay but a single egg, and that only once a year. These, however, are probably much indebted for their numbers to their hardiness and longevity, as well as to their security from serious persecution. The Pigeon, on the contrary, seems to have overspread the land in consequence of an innate force of reproductiveness with which it seems to have been purposely and providentially endowed for the sake of affording a suitable prey to the numerous fleshly appetites on earth and in air, of winged, quadruped, and reptile gluttons which are perpetually craving to be daily satisfied.

All this destiny of supplying meat to the eater would ing out an egg or one of its young. I have frequently taken two from the same nest, and reared them. A curious change of habits has taken place in England in those Pigeons which I presented to the Earl of Derby in 1830, that nobleman having assured me that ever since they began breeding in his aviaries, they have laid only one egg."—Audubon's Orn. Biog. vol. v. p. 552. A similar decreased number of eggs and young is frequently produced by other birds in captivity, as, for instance, sometimes in the Collared Turtle. A Canary hen, mated with a Linnet, has with me this summer (1849) laid a single egg, the young one from which she has reared with the anxiety and care usually bestowed upon only children. I have heard of other like cases of Canaries producing a solitary egg and young one.

have been hopelessly baffled, had the young Pigeons required to be tended, and fed, and led about, and guarded like little Chickens, for months after their birth; in this case, there would have been no living clouds consisting of millions of individuals, however numerous the hatch from each female might have been; but in the existing wise arrangement there is no waste, either of time or energetic force; the coupling of a single male with a single female proves to be an economical plan, instead of the reverse, as those might be apt to fancy on whose thoughts the polygamous domestic Fowl so readily obtrudes itself: the helplessness and indolence of the young for a time, are only made the means of their sooner becoming able not merely to shift for themselves, but, in their own rapidly-arriving turn, to rear young for themselves. The details to be hereafter given will show how completely and effectually this great end is carried out with the least possible expenditure of time and power. The forcing by gardeners, and the fattening by graziers, indeed all our artificial means of obtaining extra produce, take very second rank when we compare them with the process by which a couple of eggs, in the course of a few weeks, are nursed into a pair of perfect creatures, male and female, able to traverse long distances in search of subsistence, and to fulfil the grand law, "increase and multiply."

This alone would be wonderful; but to the innate energies implanted for useful and necessary ends, we find superadded a further quality—beauty. To the Deity alone do works of supererogation belong: He gives what is *needful* with a paternal liberality, and then is *lavish* of his bounty, and bestows ornament and

decoration upon his creatures. There can scarcely be a doubt that many of the appendages to the plumage of birds, not to say a word about brilliant colours, are given not for any *use*, or to serve the performance of any function in the economy of the creatures, but solely for appearance sake, a fact of which they themselves manifest a consciousness. Innumerable instances of this might be adduced, but a less well-known example is seen in the brilliant assemblage of Humming-birds collected by Mr. Gould, and now under the course of illustration by that gentleman, with his usual great artistic and ornithological ability. One, perhaps several, species, in addition to the parts which usually reflect the most dazzling and glancing hues, has the very under tail-coverts metallic. In most birds, colours so disposed would be little if at all observed; but in these Humming-birds the flight is so abrupt, and the motions so sharply checked and reversed, very much by the action of the tail, that the metallic feathers are suddenly seen, like a momentary star, which as suddenly vanishes, and which marks, by its appearance and extinction, the sparkling turns in the zig-zag course which the flashing bird pursues through the sunshine.

And the Pigeons, too, have their amethystine necks, and their metallic plumage, either whole or partial; sometimes a complete panoply of blazing scales, occasionally a few patches of bronze and tinsel on the wings. Crests, too, in others, are added to give grace to the head, and voices, if not melodious, yet most expressive, which is better far. In form and motion we have everything that is charming and attractive, either in repose or activity. Even in the individuals

destined for homely uses there is so much that is lovely and pleasing, that we often spare their lives in order to continue a little longer to admire their beauty and protect their gentleness. Each in its kind has its own special grace: there is the decorous Nun, the grotesquely-strutting Powter, the comely Turbit, the gay and frisky Tumbler, the stately Swan-like Fantail. In any account of so varied and yet so closely related a family, it will clearly be advisable to endeavour to produce something like a historic sketch, before proceeding to details respecting either distinct species or their supposed varieties.

The first mention of Pigeons to be met with is found in the Holy Scriptures.

[And it came to pass at the end of forty days, that Noah opened the window of the ark which he had made. And he sent forth a raven, which went to and fro, until the waters were dried up from off the earth. Also he sent forth a dove from him, to see if the waters were abated from off the face of the ground. But the dove found no rest for the sole of her foot, and she returned unto him into the ark; for the waters were upon the face of the whole earth. Then he put forth his hand, and took her, and pulled her in unto him into the ark. And he stayed yet other seven days, and again he sent forth the dove out of the ark. And the dove came in to him in the evening, and lo, in her mouth was an olive-leaf plucked off.] So Noah knew that the waters were abated from off the earth. And he stayed yet other seven days, and sent forth the dove; which returned not again unto him any more."*

* Genesis viii. 6-12.

We have here quoted the very earliest record of the Dove. The species mentioned is without doubt the blue Rock Dove, one of our common Dovehouse Pigeons*. The olive-branch, say Biblical notes, probably from some obscure rumour of this event, has generally been the emblem of peace; but, what is curious, we hear that in countries where scarcely the remotest tradition can have penetrated, a like token is similarly recognised. The sparse foliage of many Australian shrubs bears a faint resemblance to that peculiar to the olive, both in its sombre hue, and the little shade it affords. And Captain Sturt, when exploring the course of the Murray River, found that tribes of natives, who, if they had *heard* of white men, had evidently never before *seen* any, traditionally, or perhaps instinctively, comprehended the spirit of peace denoted by the offered branch.

In ancient Egypt, on the cessation of war, the troops were required to attend during the performance of prescribed religious ceremonies, when each soldier carried in his hand a twig of some tree, probably olive, with the arms of his peculiar corps. "A judicious remark has been made by Mr. Bankes respecting the choice of the olive as the emblem of peace. After the devastation of a country by hostile invasion, and the consequent neglect of its culture, no plantation requires a longer period to restore its previously flourishing condition than the olive grove; and this tree may therefore have been appropriately selected as the representative of

* In the "*Hierozoici*" of Bochart, lib. i. cap. vi., is a laborious essay, "*De Columbâ Noachi, et de Columbæ specie quæ in Baptismo Christi apparuit.*"

peace*. There is, however, reason to suppose that its emblematic character did not originate in Greece, but that it dated from a far more remote period; and the tranquillity and habitable state of the earth were announced to the ark through the same token.

“The Arabs have an amusing legend respecting the Dove or Pigeon. The first time it returned with the olive-branch, but without any indication of the state of the earth itself; but on its second visit to the ark, the red appearance of its feet proved that the red mud on which it had walked was already freed from the waters; and to record the event, Noah prayed that the feet of these birds might for ever continue of that colour, which marks them to the present day. The similarity of the Hebrew words ‘adom,’ red, ‘admeḥ,’ earth, and ‘Adm,’ Adam, is remarkable. A ‘man’ is still called ‘*A’dam*’ in Turkish.”†

The learned Bochart correctly remarks, that the Holy Scriptures rarely mention the clean birds, with the sole exception of Doves and Pigeons, respecting which more particulars are to be found than of all the others put together. The extreme antiquity of their domestication may be inferred from their employment in the patriarchal sacrifices; indeed it appears to be coeval with that of the ox and the sheep: thus, in Genesis xv. 9, the command given to Abraham is, “Take me an heifer of three years old, and a she-goat of three years old, and a ram of three years old, and a

* “*Paciferæque manu ramum prætendit olivæ.*”—Virg. *Æn.* viii. 118.

“ ‘Resolve me, strangers, whence, and what you are;
Your business here; and bring you peace or war?
High on the stern *Æneas* took his stand,
And held a branch of olive in his hand,
While thus he spoke—”

† Sir J. G. Wilkinson’s *Ancient Egyptians*, vol. i. pp. 401, 2.

turtle dove, and a young pigeon." In Leviticus i., where the offerings of the domesticated creatures of the Israelites are particularized, at verse 14 it is ordered, "And if the burnt-sacrifice, for his offering to the Lord, be of fowls; then he shall bring his offering of turtle-doves, or of young pigeons. And the priest shall bring it unto the altar, and wring off his head, and burn it on the altar: and the blood thereof shall be wrung out at the side of the altar. And he shall pluck away his crop with his feathers, and cast it beside the altar, on the east part, by the place of the ashes. And he shall cleave it with the wings thereof, but shall not divide it asunder: and the priest shall burn it upon the altar, upon the wood that is upon the fire: it is a burnt-sacrifice, an offering made by fire, of a sweet savour unto the Lord." In the same book, chap. v. 7, we find, "And if he be not able to bring a lamb, then he shall bring for his trespass, which he hath committed, two turtledoves, or two young pigeons, unto the Lord." Similar mention of the Pigeon and the Turtle-Dove is made at xii. 6; xiv. 22; xv. 14, 29; and in Numbers vi. 10. Birds appear to have been the sacrifice of the poor, as cattle, sheep, and goats were of the wealthy. There can be little doubt that the Turtle-Doves were the Collared Turtles known to us; being kept in cages, they and *young* pigeons would always be at hand; whereas the common European Turtle, a wild and migratory bird, could only be had at certain seasons, and even then only according to the chance success of the fowler, fire-arms not yet affording a sure means of capture: for the way in which Turtle-Doves are thus spoken of, as equivalent to Pigeons, and as if always obtainable, shows plainly, I think, that the for-

mer bird was not the common wild Turtle, which to this day continues to be a free and unreclaimed ranger of the old world, but the Collared Turtle, which makes itself so much at home, and breeds so freely whilst in captivity to man.

Another notice occurs in Isaiah lx. 8 :—"Who are these that fly as a cloud, and as the doves to their windows?" The passage establishes the domestication of the Rock Pigeon at that early epoch. The "windows" are clearly the apertures in a dovecote; and every reader will remember that windows in the East are seldom glazed entrances for light merely, as with us, but are openings to admit air principally, and the sun's rays as little as possible; and when closed, are done so by lattice work, or shutters, as in pigeon-lofts here: so that the expression "windows" is very appropriate to denote the means of approach to the creatures' dwelling-place.

The Rock Dove, then, had already become domesticated, as a Dovehouse Pigeon, in patriarchal times. It seems almost as if the bird had been created with an innate disposition to attach itself to, and take possession of, as its tenement, all convenient caves, rocks, or unoccupied buildings, so as to be at once ready to afford a subsidiary supply of animal food to the increasing family of man. It is not in a highly cultivated and thickly populated country like England that the value of Pigeons, as provision, is perceived. In such places they are destroyed and lost, if allowed to follow their natural instinct of ranging far and wide to obtain their subsistence; independence and industry are the qualities that constitute their value as live stock. Hence they would deserve far more consideration from the

early settlers, either in remote ages, or in a new country, than they can obtain where population is thick and agriculture advanced. A dovecote, planted by the emigrant close by his hut in the back woods, might often afford a meal when game was shy and scarce, or other stock too valuable to kill. And thus the transfer of the Rock Dove from the home afforded by nature, to the abode reared and provided by man, seems, like the case of bees, to have been a most easy change to effect. We all remember the beautiful passage in Virgil, describing the Pigeon disturbed from her nest in the cavern. We often see how soon ruined buildings, especially windmills, become tenanted by Pigeons, about which it is hard to decide whether they are reclaimed from the cliffs, or are deserters from the dovecote. A return to this semi-wild state is by no means uncommon in other countries as well as in our own. Mr. Gould informs me that domestic Pigeons are abundantly dispersed over every colonized part of Australia; and in some districts, particularly in Norfolk Island, have taken to the rocks, and quite assumed the habits of the wild Rock Dove of our own island.

In India, exactly the same half-wild disposition is similarly manifested. Some of the details of Captain Mundy's description of the Black Pagoda or Temple of the Sun, read to us as if he were rummaging the dovecote of an old manorial residence in England. "Myriads of wild pigeons and bats occupy the dark interior of the lofty cupola. . . . The thunder-threatening closeness of the atmosphere having completely spoiled our imported provisions, in the afternoon we took post on each side of the temple with our guns, and sending in a domestic to drive out the immense flocks of pigeons,

soon provided ourselves with an extempore dinner, besides the enjoyment of half an hour's very pretty practice."*

It is very probable that, before many years have elapsed, we shall have similar accounts, from sporting tourists in the New World, of shooting scenes in which the very same species, the feral *Columba livia*, or Dove-house Pigeon returned to an independent condition, plays the principal part as victim and target for fowling-piece practice. It is strange if there are not already some self-emancipated pairs tenanting the rocks along the course of the Hudson. "In the United States," Mr. Thos. S. Woodcock says, "I can speak from personal observation, that Fancy Pigeons are cultivated in great variety. I knew one person in New York, and another in Brooklyn, who had large collections. The Carrier was employed there extensively before the introduction of the electric telegraph, and I presume that all have been introduced a long time, probably by the earliest colonists, for no one ever thought them novel. We once had a lot exhibited at our Brooklyn Society, but they were merely shown as fine specimens, not on account of their being any rarity. The domestic Pigeon is quite common, and the very young birds brought to market for sale, as with us in England."

The little or no variation from the wild type which the half-wild blue Rock Pigeon (as such) has undergone in this long succession of ages, is really remarkable, and ought to have its full weight in the consideration of the question as to the origin of the fancy kinds. We are quite justified in believing that the blue Rock Pigeon never was more wild than it is at

* Pen and Pencil Sketches, vol. ii. p. 273.

present; and that from its very first joint occupancy of the earth in company with man, it was always as ready to avail itself of any fit asylum and nesting-place which he afforded it—perhaps more so, in consequence of the greater number of rapacious birds existing in early times—and always equally ready to return to the rocks and caves when it felt any occasional disgust to its adopted home. Unless the external appearance of the wild bird has altered at the same time with that of the tame one, but little change has taken place in this respect. The beautiful wood-cut of the *Columba livia*, which Mr. Yarrell gives in his “British Birds,” might pass for a well-selected specimen of the Blue Rock Dovehouse Pigeon.

Fancy Pigeons, as distinguished from the Dovehouse kinds that were reared for the table, seem to have been known from a very early epoch. It may be believed that we hear less of the different sorts then cultivated and most in favour, in consequence of the merits of all the others being so much thrown into the shade by the superior value and usefulness of those employed as letter-carriers.

To save trouble to future archæological poultry fanciers, we will quote a few words from Sir J. G. Wilkinson: “It is remarkable that the camel, though known to have been used in, and probably a native of Egypt, as early at least as the time of Abraham (the Bible distinctly stating it to have been among the presents given by Pharaoh to the patriarch), has never yet been met with in the paintings or hieroglyphics. We cannot, however, infer, from our finding no representation or notice of it, that it was rare in any part of the country, since the same would apply to poultry, which, it is scarcely

necessary to observe, was always abundant in Egypt; for no instance occurs in the sculptures of *fowls or pigeons* among the stock of the farm-yard, though geese are repeatedly introduced, and numbered in the presence of the stewards."*

Aristotle appears to intend to confine himself to the description of the wild species of Pigeon only, and mentions five corresponding with those now seen in Europe and Western Asia; but in the classical period they are repeatedly spoken of as well known, and no novelty, only dear; just as choice Almond Tumblers and Powters were with us twenty or thirty years ago, when they were more the fashion than they are at this moment; and as Bronze-wings, Crowned Pigeons, and other foreign rarities still are, and will be, till they increase more rapidly. A few slight hints on the peculiarities of these old kinds are here and there to be picked up. Thus we learn from Columella (viii. 8), that the Alexandrine and Campanian Pigeons were, *alieni generis*, distinct breeds, and not advisable to couple together. Pliny tells us that the latter were the largest of Pigeons, Runts, in fact; we may therefore suppose that the taste of the Alexandrian fanciers was more in favour of the smaller kinds, such as the Tumblers, or the Nuns—an old-established race, and no doubt much more ancient than their Christian namesakes.

It is commonly taken for granted that the Pigeon Fancy is a modern taste; but it is clear, from many passages in the classics, that a number of different sorts were cultivated by the ancients, though we have fewer

* Ancient Egyptians, vol. iii. p. 35.

particulars respecting the special characteristics of the varieties then in vogue, than we have of their domestic Fowls. Columella is scandalised at the inveteracy and extravagance of the Pigeon Fancy amongst his contemporaries. "That excellent author, M. Varro, recorded even in his more severe age, that single pairs were usually sold for 8*l.* 1*s.* 5½*d.* each. For it is the shame of our age, if we choose to believe it, that persons should be found to purchase a couple of birds at the price of 32*l.* 5*s.* 10*d.**; although I should think those persons more bearable, who expend a heavy amount of brass and silver, for the sake of possessing and keeping the object of fancy wherewith to amuse their leisure, than those who exhaust the Pontic Phasis (for Pheasants to eat), and the Scythian lakes of Mœotis (for a fish dinner). Yet even in this aviary, as it is called, the luxurious process of fattening can be carried on; for if any birds happen to be sterile, or of a bad colour, they are crammed in the same way as Hens."†

Pliny also records the prevalence of a Pigeon mania amongst the Romans. "And many are mad with the love of these birds; they build towers for them on the tops of their roof, and will relate the high breeding and ancestry of each, after the ancient fashion. Before Pompey's civil war, L. Axius, a Roman knight,

* One always feels uncertain and doubtful of accuracy when converting ancient monies to the modern standard; but Columella would indeed be indignant could he know the prices now paid for rare birds and animals. Mr. Jamrach told me that he had sold a pair of the large blue Crowned Indian Pigeons for 60*l.*, and Mr. Yarrell informed me that the market price of a really fine Tiger is 400*l.* A pair of the Impeyan Lophophorus were, in the autumn of 1848, and may still be, worth 100*l.* sterling.

† Lib. viii. cap. 8.

used to sell a single pair of Pigeons *denariis quadringentis*, for four hundred denarii.”* Ainsworth sets down the denarius at $7\frac{3}{4}d.$, so that the price of these birds was 12*l.* 18*s.* 4*d.*, which is not so much out of the way, if they were really good.

Ælian, too, familiarly mentions the distinction between wild and tame Pigeons.—“Doves in towns live in society with man, and are very tame, and crowd about one’s feet; but in desert places they fly away, and do not await the approach of men.”†

But it is as letter-carriers that Pigeons have obtained the greatest celebrity among the ancients, and of their services in this capacity we find very frequent and interesting mention. The practice seems to have been adopted in remote times, in modes, and upon occasions, the exact counterpart of those which call forth the powers of the bird at the present day. How likely is it that the Patriarchs, remembering the tradition of the ark, in their search for fresh pasture at a distance from the main body of their tribe, may have taken with them a few pigeons to be flown from time to time, and carry home news of the proceedings of the exploring party. During the last few years, the invention of the Electric Telegraph has done more to bring Carrier Pigeons into partial disuse than had been effected in the three thousand years previous. Whether the bird so employed in early ages was identical with our Carrier does not appear; but, until something to the contrary is proved, we may be permitted to assume that it was the same in every respect.

Varro writes, “It may be observed, that the habit of Pigeons is to return to their home, because many per-

* Lib. x. 53.

† Anecdotes of Animals, Book iii. 15.

sons throw them off from their lap in the (roofless) theatre, and they return home:" he innocently adds, "they would not be thrown off unless they did return home." And thus Pigeons, which once used to carry off the name of a victorious gladiator, have since that time been made to announce the result of the less fatal encounter of a pair of pugilists.

Some of the learned are of opinion, that this old Roman practice of sending Pigeons off from the crowded amphitheatre, from seats which it was not always possible for the occupier to quit at pleasure, and of making them carry home the news, or the wishes and orders of their owner, *is the very origin of the custom*, and gave the hint to Brutus and others to avail themselves of Pigeons as messengers in more important affairs. But they seem to have forgotten that, long before the age in which Varro lived, the ancients made use of letter-carrying Pigeons, when they went any distance from home, as the most certain means of conveying intelligence back; and that, in the sixth century before Christ, Anacreon wrote the Ode which has been so beautifully translated by Thomas Moore:—

"Tell me, why, my sweetest dove,
Thus your humid pinions move,
Shedding through the air in showers
Essence of the balmiest flowers?
Tell me whither, whence you rove,
Tell me all, my sweetest dove."

"Curious stranger! I belong
To the bard of Teian song;
With his mandate now I fly
To the nymph of azure eye;
Ah! that eye has madden'd many,
But the poet more than any!

Venus, for a hymn of love
 Warbled in her votive grove,
 ('T was in sooth a gentle day,)
 Gave me to the bard away.
 See me now his faithful minion;
 Thus with softly-gliding pinion,
 To his lovely girl I bear
 Songs of passion through the air."

The birds which had been found so subservient as messengers of love were likely to be employed as accessories to the commission of witchcraft; and Ælian gives us reason to suspect, that many of the marvellous revelations of second sight, at least, may be explained by supposing the seers to have employed the agency of Carrier Pigeons.

"Some say that the victory of Taurosthenes at Olympia was made known in one day to his father, at Ægina, by a vision: but others say, that Taurosthenes carried a Pigeon away with him, making her leave her young ones still tender and unfledged, and that having obtained the victory, he sent off the bird, after attaching a piece of something purple to her; and that she, hastening to her young, returned in one day from Pissa to Ægina."* It is to be here noted that Ælian uses the synonyms $\pi\epsilon\sigma\iota\sigma\tau\epsilon\rho\alpha$ and $\pi\epsilon\lambda\epsilon\iota\alpha$ to denote the same individual bird.

In his treatise on Animals, Book iv. 2, there is another curious story of Pigeons being absent for a time from their haunts in Eryce in Sicily, where was a famous temple of Venus, and of their being regularly led back after a stated interval, by a purple $\pi\omicron\varsigma\phi\upsilon\varsigma\epsilon\alpha$ Dove. The tale is unintelligible, unless we sup-

* Var. Hist. ix. 2.

pose that a Carrier was made the engine of priestcraft, by having its flight made to coincide with the migrations of any wild species of Columba.

The ancient oracles also enlisted Pigeons into their service. Lempriere informs us respecting the famous temple at Dodona, that "two black doves, as Strabo relates, took their flight from the city of Thebes in Egypt, one of which flew to the temple of Jupiter Ammon, and the other to Dodona, where with a human voice they acquainted the inhabitants of the country that Jupiter had consecrated the ground, which in future would give oracles. The extensive grove which surrounded Jupiter's temple was endued with the gift of prophecy, and oracles were frequently delivered by the sacred oaks, and the Doves which inhabited the place." And it is in allusion to such sacred birds that Ælian writes, "A Locust implicated the Ephesians and the Magnetæ in war with each other, and a Pigeon the Chaonians and Illyrians."* There was a wood near Chaonia where Doves were said to deliver oracles; but Ovid† records that the birds in question were not *Wood Pigeons*.

"Quasque colat *turres* Chaonis ales habet."

"And the bird of Chaonia has *towers* wherein to dwell."

The killing of a Stork would still incite a riot in many countries, and the destruction of Robins is yet regarded with as much indignation in England, as the slaughter of Doves was in Chaonia.

Xenophon, Ctesias, Lucian, and other cotemporary witnesses assert, that the Syrians and the Assyrians either worshipped Pigeons and Doves, or at least ab-

* Nat. Anim. xi. 27.

† A. Am. ii. 150.

stained from them as being of a sacred nature. How this superstition was introduced into Syria or Assyria, is not known; but it is curious that the Russians, as we are informed by Mr. Yarrell, should at this day regard them with similar forbearance and even veneration; and we can hardly avoid guessing that the feeling must be founded on some most ancient tradition current amongst the Slavonic races.

The great modern instance in which the Pigeon has been made the tool of religious imposture, is the tale, generally supposed to be forged, of the Dove which was said to be always seated on the shoulder of Mahomet, communicating past, present, and coming events to the false prophet. But an able writer in the "Edinburgh Review" considers the story to be a simple misinterpretation consequent upon putting a literal construction upon an imperfect pictorial representation:—"The great teachers of the Church had been held, not without reason, to have derived their wisdom from above. In order to call attention to this accredited doctrine, artists placed the holy emblem of the Dove upon the shoulder of each spiritually enlightened father. Sometimes the bird was drawn in the very act of whispering wisdom into the sage's ear. The people had learned what was meant by the juxtaposition of one of the persons of the Trinity and the Dove; but they were confused and deceived by the same personification, in connexion with a well-known doctor, or a pope. They consequently soon put a literal construction upon it. The rumour ran, that these holy men had been attended each by his inspiring Dove; and the writer of legends, who must often have been driven hard for facts, gladly accepted a tale already sanctioned by popular

belief. Thus were the legends enriched by the poverty of art. This tale is told of St. Thomas Aquinas, of St. Basil, of St. Gregory the Great, of St. Hilary of Arles, of eight other saints of less mark and note; and, finally, we may add, of Mahomet.*

Warfare has, however, given the most frequent occasion for the employment of Carrier Pigeons. The clever contrivance of Brutus is thus mentioned by Pliny, and we quote it, although it is a well-known passage, and has even had the honour of being paraphrased in verse:—"But they have also been used as messengers in important matters: during the siege of Mutina, Decius Brutus sent letters tied to their feet into the camp of the Consuls. What service did Anthony derive from his trenches, and his vigilant blockade, and even from his nets stretched across the river, while the winged messenger was traversing the air?"†

But the winged messenger, like every other human instrument, sometimes fails to execute its office, as the worthy Fuller tells us in his "*Historie of the Holy Warre.*" The Christians "began the siege of the citie of Jerusalem on the North (being scarce assaultable on any other side by reason of steep and broken rocks), and continued it with great valour. On the fourth day after, they had taken it, but for want of scaling-ladders. Nearer than seven miles off, there grew no stick of bignesse. I will not say, that since our Saviour was hanged on a tree, the land about that citie hath been cursed with a barrenness of wood. As for the Christians' want of ladders, that was quickly supplied: for the Genoans arriving with a fleet in Palestine,

* *Edinburgh Review*, April, 1849, p. 385.

† *Lib.* x. 53.

brought most curious engineers, who framed a wooden towre, and all other artificiall instruments. For we must not think, that the world was at a losse for warre-tools before the brood of guns was hatched. And now for a preparative, that their courage might work the better, they began with a fast, and a solemn procession about mount Olivet.

“ Next day they gave a fierce assault; yea, women played the men, and fought most valiently in armour. But they within being fourty thousand strong, well victualled and appointed, made stout resistance, till the night (accounted but a foe for her friendship) umpired betwixt them, and abruptly put an end to their fight in the midst of their courage.

“ When the first light brought news of a morning, they on afresh; *the rather, because they had intercepted a letter tied to the legs of a dove (it being the fashion of that country, both to write and send their letters with the wings of a fowl)*, wherein the Persian Emperour promised present succours to the besieged. The Turks cased the outside of their walls with bags of chaff, straw, and such-like pliable matter, which conquered the engines of the Christians by yeelding unto them. As for one sturdie engine whose force would not be tamed, they brought two old witches on the walls to inchant it: but the spirit thereof was too strong for their spells, so that both of them were miserably slain in the place.”*

Thus the intercepted Dove and the suborned old witches were each working an antagonistic counter-spell, till the Satanic influence was finally made to succumb.

* Book i. chap. 24.

Mr. Rogers has given us a companion picture to the foregoing, expressed in a different form, but equally interesting. His exquisite lines are founded on the anecdote, from Thuanus, lib. iv. c. 5, that during the siege of Harlem, when that city was reduced to the last extremity, and on the point of opening its gates to a base and barbarous enemy, a design was formed to relieve it; and the intelligence conveyed to the citizens by a letter which was tied under the wing of a Pigeon. The Poet naturally and feelingly asks,

“ Led by what chart, transports the timid dove
The wreaths of conquest, or the vows of love ?
Say, thro’ the clouds what compass points her flight ?
Monarchs have gazed, and nations blessed the sight.
Pile rocks on rocks, bid woods and mountains rise,
Eclipse her native shades, her native skies—
'T is vain ! through Ether’s pathless wilds she goes,
And lights at last where all her cares repose.

“ Sweet bird ! thy truth shall Harlem’s walls attest,
And unborn ages consecrate thy nest.
When, with the silent energy of grief,
With looks that asked, yet dared not hope relief,
Want with her babes round generous Valour clung,
To wring the slow surrender from his tongue,
'T was thine to animate her closing eye ;
Alas ! 't was thine perchance the first to die,
Crushed by her meagre hand, when welcomed from the sky.”

The Pleasures of Memory, Part I.

But it is now time to retrace our steps, and return to the Pigeons of a remoter age.

The accommodations provided for Pigeons in ancient times could not have widely differed from those of the present day. Many of those birds which are most tameable, and show the greatest inclination for human so-

ciety and neighbourhood, rarely perch upon trees, but regard rocks and buildings, especially those that are ancient or ruined, as if they were one and the same thing, or as if shifting their haunts from one to the other was but a natural step. A wild Cormorant, that most docile of birds, has been known to alight on the grey battlements of King's College, Cambridge, mistaking them for the pinnacles of hoary rocks; and so the Rock Dove, or blue Dovehouse Pigeon, for *these* are identical, may be known from the Stock-dove by its seldom or never perching upon branches. Thus in Jeremiah xlviii. 28: "O ye that dwell in Moab, leave the cities, and dwell in the rock, and be like the Dove that maketh her nest in the sides of the hole's mouth." The Doves that "fly to their windows," in Isaiah, had only made an instinctive change of abode: and the Chaonian towers above-mentioned were, we should say, tenanted by a set of birds whom a very slight affront would have driven back into the wilderness.

The Romans kept domestic Pigeons very much in the same way that we do; and in addition to this were in the habit of catching the wild species, such as the Ring Dove and the Common Turtle, and fattening them in confinement as we do Quails and Ortolans.

"The attempt to breed Turtles is superfluous: for that genus neither lays nor hatches in an aviary. As soon as it is caught from the wild state, it is destined to be crammed, and that with less trouble than other birds are fattened, but not at all seasons. In the winter, although pains be taken, it is with difficulty made to thrive: and yet, because Thrushes are then in greater plenty, the price of Turtles is lower. In the Summer again it most readily fattens, so there is but plenty of

food: for it is only necessary that food should be thrown before them, but especially millet: not that they gather less flesh upon wheat or other grain, but because they are exceedingly fond of this seed. The fattening-places for them are not, as for Pigeons, lockers or hollow cells; but brackets, fixed in line along the wall, hold little hempen mats, nets being stretched over them to prevent their flying, which would diminish their fleshiness. In these places they are assiduously fed with millet or wheat: but those seeds ought only to be given in a dry state. Half a bushel (semodius) of food each day suffices for a hundred and twenty Turtles. Water constantly fresh, and as clean as possible, is given in the same vessels as are used for Pigeons and Hens; and the mats are cleaned lest the dung should burn their feet, which, however, ought to be carefully laid aside for the culture of the fields and the trees, as ought that of all except the water birds. This bird is not so suitable for fattening in its adult state, as when very young. Therefore about harvest, when the brood has got strength, is the time to choose.”*

Even the severe Cato could advise a troublesome method of fattening Wood Pigeons. He was military tribune B.C. 189. His work on agriculture is a collection of receipts rather than a complete treatise, but is always respectfully referred to by other Roman writers on agriculture. We give the original passage as a curious specimen of Latinity, and of a style which would not be allowed to pass current in a university prize essay: —“*Palumbum recentem ut prensus erit, ei fabam coc-tam tostam primum dato; ex ore in ejus os inflato item*

* Columella, viii. 9, our own translation.

aquam, hoc dies vii. facito. Postea fabam fresam puram, et far purum facito, et fabæ tertia pars ut infervescat, cum far insipiat, puriter facito, et coquito bene, id ubi excoxeris depsito bene, oleo manum unguito, primum pusillum, postea magis deposes, oleo tangito depsitoque, dum poteris facere turundas, ex aqua dato, escam temperato.”—“When a Wood Pigeon is fresh caught, first give it roasted beans. From your mouth blow them into its mouth, also water. This do for seven days. Afterwards bruise unmixed beans, and make pure meal, and let a third part be of beans, that it may be hot. When the meal becomes unsavoury, make it up cleanly, and cook it well. When you have thoroughly cooked it, knead it well, grease your hand with oil; first knead a little, then more; touch with oil and knead, whilst you shall be able to make it into pellets, give it out of water, mix the food.”*

A charming scrap of evidence of the favour which these birds enjoyed as ornamental pets amongst the ancients, is seen in the famous mosaic in the Hall of the Vase, at the Capitol Museum at Rome. Many a lady wears a reduced copy of this most graceful composition, in the shape of a cameo brooch or bracelet, without being aware of the interesting antiquity of the original design. Murray's excellent “Handbook for Central Italy,” p. 433, thus describes it:—“101. The celebrated mosaic of Pliny's Doves, one of the finest and most perfectly preserved specimens of ancient mosaic. It represents four doves drinking, with a beautiful border surrounding the composition. It is supposed to be the mosaic of Sosus, described by Pliny

* Chap. xc.

in his thirty-fifth book, as a proof of the perfection to which the art had been carried in his day. He says, that there is at Pergamos a wonderful specimen of a Dove drinking, and darkening the water with the shadow of her head ; on the lip of the vessel others are pluming themselves. ‘*Mirabilis ibi columba bibens, et aquam umbrâ capitis infuscans. Apricantur aliæ scabentes sese in cathari labro.*’ It was found in Hadrian’s villa in 1737, by Cardinal Furietti, from whom it was purchased by Clement XIII.”

The tutelary patronage and grateful friendship supposed to subsist between the Kestrel Hawk and the Pigeon, ought not to be omitted in any account of the Doves of yore. Pliny writes, “*Speculatur occultus fronde latro, et gaudentem (columbam) in ipsâ gloriâ rapit.*”—“The thievish Falcon watches under his covert of leaves, and seizes the rejoicing bird in its very pride.” We have elsewhere noticed how troublesome the predacious birds seem to have been in Italy, during the times when northern Europe was less thickly inhabited than it is at present. “Wherefore, the bird which is called *tinunculus*, or Kestrel, should be kept with them ; for it defends them, and frightens Hawks by a natural power to such a degree that they avoid the sight and sound of it. On this account, Pigeons regard them with especial love. And they say, that if they be buried in four corners of the pigeon-house in fresh-painted earthen vessels, the Pigeons will not shift their habitation—a result which some have endeavoured to obtain by cutting the joints of their wings with a golden knife, wounds otherwise inflicted not being harmless—and the bird being besides much of a vagrant ; for it is their artifice to wheedle and corrupt

each other, and furtively to return home with a party of followers."*

Columella, equally anxious that the dovecote should not be deserted, suggests rational means of keeping the birds at home, at the same time that he does not forget the Kestrel. "But their place ought to be frequently swept out and cleansed, for the neater it is kept, the more delight will the birds appear to take in it; and so fastidious are they, that if they have the liberty they will often leave their own home in disgust, which frequently happens in those districts where they are allowed free egress. The old precept teaches how to prevent that misfortune. A sort of Hawk is called by the country people *tinunculus*: the young of this bird are shut up in earthen vessels, one in each, and closed in alive; the vessels are smeared with plaster, and suspended in the corners of the pigeon-house, by which means the birds are so attached to the place that they never desert it."†

It may be supposed that if the Kestrel does drive off larger birds of prey, it is with the motive of protecting his own household rather than that of the Pigeons, although they may be the more secure for the temporary truce. But other potent charms for the increase of columbine prosperity have had their advocates: one worthy recommends the skull of an old man to be hung up in the dove-house, thereby causing the Pigeons to multiply and remain quietly at home; another has faith in hanging a piece of the thong or halter with which a man has been strangled, from each window (*per omnes fenestras*), which those may try who are careless about

* Pliny's Hist. x. 52.

† Columella, viii. 8.

their character for sanity. A less absurd recipe, of the same date, is a goat's head, stewed down with *plenty of cummin and salt*, to which some add burnt clay, urine, coriander, hempseed, honey, and substitute the herb *tragus* (*He Goat*), if we could discover what that is, for the stewed goat's head ; in short, making the regular salt cat, which the trappists (not ecclesiastical) of the present day know to be so irresistible a bait for stray birds. But the great bond of attachment is to make their home comfortable, of which Temminck gives an instructive instance. The proprietors of a farm went to occupy it themselves, after it had been held by a tenant for a lease of nine years : they had left the pigeon-house amply stocked, but they found it deserted, dismantled, filthy, and occupied by every enemy of the poor fugitives. They took no further pains than to whitewash the pigeon-house within and without, to restore the dilapidations of the interior, to have it cleaned out perfectly, and to keep abundance of water and salt therein. The pigeon-house was replenished with birds as if by enchantment ; so much so, that when the owners again quitted their estate, there were more than a hundred and fifty pairs of Pigeons, which, moreover, were supplied with scarcely any food. Three years was all the time required to work this change, and even to attract deserters from the pigeon-houses for three miles round. Rational means succeeded better than all the charms and conjurations of Thessaly, and the French land-owner may exculpate himself almost in the words of Othello, from all malpractices with " spells and medicines bought of mountebanks :"—

" Most potent, grave, and reverend signiors,
My very noble, and approved good masters,

That I have ta'en away another's pigeons
 It is most true ; true they do flock to me ;
 The very head and front of my offending,
 Hath this extent, no more. Yet, by your leave,
 I will a round unvarnished tale deliver
 Of my whole management ; what drugs, what charms,
 What conjuration, and what mighty magick
 (For such proceeding I am charged withal),
 I won the pigeons with

 This is the only witchcraft I have used,
 Here come the pigeons, let them witness it."

But these passages remind us that we are somewhat anticipating what we have to say respecting the habits and disposition of the true Dove-house Pigeon, as differing from the other sorts kept in a domestic state. From the ancients the pursuit of Pigeon-fancying seems to have descended to the Dutch, as it is likely that it would to such a wealthy, commercial, and observant people. In old times, we are told, at least every fourth Dutchman was a Pigeon-fancier. They were also diligent hunters out, and importers of new kinds ; so that what Pliny said of the Romans may be affirmed of the Dutch, *i. e.*, that they were mad after Pigeons. Venice also, another mercantile state, had opportunities of obtaining new kinds, which were zealously cultivated. But this chapter has already exceeded its due limits : and the reader shall at once be introduced to the habits of increase, and general modes of managing these birds.



Pair of Trumpeters.

CHAPTER II.

MANAGEMENT OF PIGEONS.

Feed their own young.—New-hatched squabs.—The pigeon-loft.—The trap.—Nesting-places.—Food and luxuries.—Water-supply.—Out-door pigeon-houses.—Pole-house.—Dovecotes.—Pigeon law.—Varro's dovecote.—Stocking the loft.—Commencement of breeding.—Laying.—Incubation.—Merits of the cock.—Nutrition and growth of the squabs.—Pairing of pigeons.—Two hens will pair together.—Widowed pigeons.—Young birds.—Differences among the eggs and the very young.—Providential adaptations.

THE main difference between Pigeons and all other birds that are bred with us for domestic uses, is, that the young of the latter have to be supplied with suitable food as well as the parents, and on that supply very much depends the chance of successfully rearing

them. No nest or *permanent* habitation is required for them after they are once brought into the world; merely a temporary shelter by day, and a secure and convenient lodging by night, which, however, may be shifted continually from place to place with advantage rather than injury to the restless little occupants. This is the case with all the Water-fowl which we keep domesticated, as well as with the gallinaceous birds. The Duck and the Goose, as well as the Hen and the Turkey, lead out their young by day to their proper food, any deficiency of which, arising from their not being in a state of nature, is supplied by man; and when rest and warmth are required by the tender brood, the mother herself furnishes all that is needed under the shelter of her wings. Her own personal attentions supply from time to time whatever nest and covering is required; *our* care is to exercise a general superintendence, and provide them liberally with the necessary articles of diet. But with Pigeons the reverse of all this obtains. If you cater for them plentifully, well and good; they will partake of the fare, and give themselves no more trouble. If you stint them, never mind; they will go further a-field, and forage for themselves, not being over-scrupulous as to the proprietorship of the corn they may eat, or delicate about committing a trespass. But if your allowance is quite too pinching, and the neighbours wage a determined war against all pilferers, then the Pigeons will pluck up their resolution, and emigrate to some new home, where better treatment awaits them: for a home *they must* have. With that tolerably adjusted, and a decent allowance of food from you, they will, by their own industry, with little further interference, increase so rapidly, and produce so large a

supply of flesh for culinary purposes, that there are cases in which the phenomenon strikes one with perfect astonishment.

Young Pigeons, when first hatched, are blind, half naked, weak, and helpless. They are fed, nearly till they are able to provide for themselves, entirely by their parents. The aliment necessary for their feeble organs during their earliest stage, is elaborated in the crop of the old birds just before hatching; they administer it according to their instinctive knowledge of the fit intervals, and all we have to think of is to see that *they* suffer no deficiency of their accustomed rations. But with such utterly dependent younglings, a fixed and safe household establishment is the thing, without which all other comforts are worthless to them.

Now, there are three modes in which a home is usually supplied to Pigeons in this country. First, by the old-fashioned square Dovecotes, built of solid materials, and capable of accommodating a large number of birds, such as we see forming part of the outbuildings of manorial houses, which have enjoyed the privilege of keeping them for many years. Secondly, in small open wooden boxes, either placed against walls and gables, or elevated and isolated on poles; the birds, as before, constantly having free access, and being totally unconfined, though usually forming a smaller population than in the former case. And thirdly, in a room, or chamber, or Pigeon-loft appropriated to the purpose, which can be closed or opened at the pleasure of the owner, containing also separate cages for special purposes, and in short all the apparatus requisite for the systematic practice of breeding, and of regulating the

pairing and rearing of the inmates, according to determinate rules. This last mode, which may be made equally profitable as regards the increase of stock, is the only one which can prove satisfactory to the fancier, or to the experimental naturalist. The first system is slovenly and semi-barbarous, belonging rather to feudal times, and a primitive state of agriculture, than to the present day. The second plan may do to furnish an ornamental addition to the outbuildings of a residence, or to accommodate a few children's pets, but is otherwise unsatisfactory; and therefore it is, that of this third mode of Pigeon-keeping we shall first and principally give an account.

The apartment in one's house or its appendages which can be most conveniently appropriated as a Pigeon-loft, is seldom open to much choice. Where a selection can be made, a sheltered and sunny aspect is most desirable; a lofty situation is especially eligible for town-resident amateurs. An adequate amount of window-light is wanted more for the pleasure of the owner than for the requirements of the birds, which appear naturally to prefer obscure retreats for their home and breeding-place. Pigeons can *see* to feed late after sunset, when it is quite dusk, and when other domestic birds would give it up. The power of sight which they have to distinguish distant objects, seems extensible also to those that are but faintly illuminated. Their eye is convertible from a telescope to a night-glass.

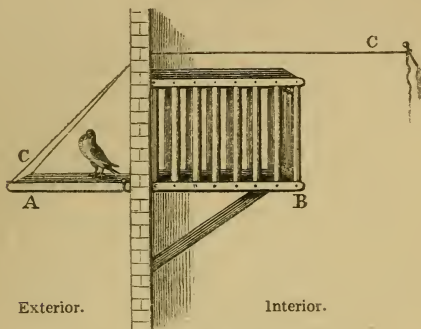
The main external feature of the Pigeon-loft is the trap; and none can be better than a projecting box; an old tea-chest has often served the purpose efficiently, with the sides, top, and bottom either quite closed and boarded in, or made of lattice-work, the back opening

into the Pigeon-loft and the front consisting of a latticed door, or rather a drawbridge, conducting the birds to the open space in which they are to exercise their powers of flight. The drawbridge (from which the trap derives its use and name) opens at the top and turns on hinges below. It is raised or let down by a string, which should pass *through* the loft, so that it can be drawn up, and the trap closed by the owner outside or beneath the loft, or in an adjoining chamber, without disturbing the birds, after he has ascertained, by peeping through a chink or aperture, that they have entered their apartment. The peculiar fittings of the trap, as most suitable to the room to which it is attached, are best left to some clever carpenter who is experienced in such work, and do not need further detail here, except to state, that at the opening by which the trap enters the loft, it is usual to have pieces of lath hanging vertically and freely suspended from a wire above, in such a way as to allow the entrance and prevent the egress of the birds. These the owner can raise at pleasure.

The trap here figured is copied from one now in use by Mr. Brown, of St. Margaret's, Norwich. A difference exists between this, and most others, in that only the outer door or drawbridge of this trap is *outside* the building; by which means, that gentleman says, there is some convenience gained. The little swinging doors hang on a wire; they are round, and are broader towards the bottom, *i. e.*, long cones, so as to be steadied by their own weight, as in the woodcut.

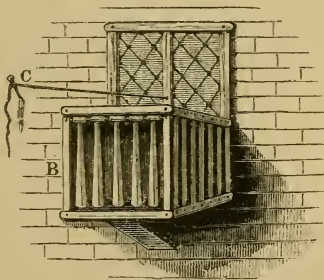
The accommodations provided as nesting-places, and their arrangement, must also very much depend upon circumstances. The most important point is, that there

should be *at least two convenient Pigeon-holes or breeding-places to each pair of birds*, and that there be not the least pretext for their disturbing each other or quarrelling on this account. In other respects, it may



Trap of Pigeon-loft.

- A, the door of the trap (outside the building).
 B, the inner end of the trap where the swinging doors hang.
 C C, the string used to pull up the outer door of the trap.



Trap of Pigeon-loft.

Interior showing the loose bars called "the bolt."

- B, the little swinging doors on the inner end.
 C, the string which pulls up the outer door.

be said of Pigeon-lockers, as of governments, "which e'er is best administered, is best." In the rare "Treatise on Domestic Pigeons," an excellent plan is thus suggested:—

"You may erect shelves, of about twenty inches broad, for breeding places, allowing eighteen inches between shelf and shelf, that Powters may not be under the necessity of stooping for want of height, for in that case they would contract an habit of playing low, which spoils their carriage. In these shelves partitions should be fixed at about three feet distance, making a blind, by a board nailed against the front on each side of every partition, which will make two nests in the extent of every three feet; and the Pigeons will not be liable to be disturbed, as they will then sit in private. (This is an excellent plan, for a reason to be hereafter mentioned.) Some fix a partition between each nest, which prevents the young ones from running to the hen sitting at the other end, and thereby cooling her eggs; for in breeding time, when the young ones are about a fortnight or three weeks old, the hen, if a good breeder, will lay again, and leave the care of the young ones to the cock. Others let them breed in partitions entirely open in front, for the greater convenience of cleaning out their nests. I find by experience, that nests made on the floor are much more convenient than otherwise, if the loft will admit of it, for it prevents the young ones falling out of their nests, which sometimes breaks a leg, and very often lames them, *and also gives them a chance of being fed by other Pigeons, as well as their parents, which frequently happens.* In every nest should be placed a straw basket, or earthen pan, that has not been glazed, which prevents the straw from slipping

about, both which are made for this purpose, and the size must be in proportion to the Pigeons you breed: for instance, a pan, fit for a Tumbler, or other small Pigeon, should be about three inches high, and eight inches over at the top, and sloping to the bottom like a wash-hand bason, and that in proportion for other larger Pigeons, remembering to put a brick close to the pan, that they may with greater safety get upon their eggs; and by the means of this pan, the eggs are not only prevented from rolling out of the nest, but your young Pigeons from being handled when you choose to look at them, *which often puts them into a scouring*. Some prefer the basket, as judging it the warmest, and not so liable to crack the egg when first laid; others the pan, as not so apt to harbour vermin, and being easier cleaned; and say that the foregoing inconveniences are easily remedied by putting in a sufficient quantity of clean straw, rubbed short and soft, or frail; the frail is most valued, because it lays hollow, and lasts a great while, the dung shaking off it as occasion requires."*

Although in the country, and such situations where the Pigeons may safely be allowed almost entire liberty, it is not necessary to furnish a loft with hoppers or meat boxes (of which there are several patterns to be had); still it may be as well to feed them occasionally, *i. e.*, four or five times a week, in their chamber, even though it may be wished to see them take their food on the ground with the other poultry as a general rule. For this purpose it will be sufficient to throw down a moderate supply of peas or barley on their floor, which we suppose to be swept and fresh gravelled with some

* Treatise on Domestic Pigeons (Lond. 1765), pp. 4-6.

degree of regularity. The object of thus feeding them within-doors is partly to confirm their affection for the spot, and partly to give the forward squeakers that may have quitted the nest, a chance of learning to peck for themselves. Colder, old mortar, and the lime-rubbish from dilapidated buildings, when it can be had, is an excellent thing to strew their floor with, in addition to the gravel; if it is not obtainable, a few lumps of clay or brick-earth, and a spadeful of dry loamy soil may be put down here and there. Two other luxuries should never be wanting, salt and water; day by day it should be looked to that there is a sufficiency of these. They will be more effectual than almost anything in preventing the birds from straying, and, if you wish it, in tempting your neighbours' birds to repeat their chance intrusions. The salt may be of any coarsely-granulated kind, set down in an earthen pan; it can be eaten more readily than rock-salt, and is therefore more agreeable. Fanciers who are more superstitious than cleanly, can prepare the Salt-Cat according to the most potent and the nastiest recipe*, but we have found that the mineral in its natural state answers every purpose of keeping the birds healthily contented with their lot, and so have avoided handling ingredients amongst which assafœtida is not the most disagreeable.

As to the water supply, every earthen-ware and glass shop affords plenty of choice; the open pan gives the

* "So named, I suppose, from a certain fabulous oral tradition of baking a cat, in the time of her salaciousness, with cummin seed, and some other ingredients, as a decoy for your neighbours' pigeons."—Treatise, p. 31.

"Some make use of a goat's head boiled in urine, with a mixture of salt, cummin, and hemp."—The New and Complete Pigeon-Fancier, by Daniel Girton, Esq., p. 59.

birds an opportunity of bathing, in which they delight ; but they will soon splash out all the water from that, and therefore a reservoir with a narrow opening is more sure to satisfy the wants of the community. It is best to provide one of each. Of the latter kind none can be preferable to that described in the " Treatise," affording, as it does, opportunity for a lecture on Hydrostatics.

" The water-bottle should be a large glass bottle with a long neck, holding four or five gallons (the carboys, in which various fluids are received by dispensing chemists, are very suitable for the purpose), and its belly made in the form of an egg, to keep them from dunging on it ; but the shape is not material, as a piece of paste-board, hung by a string at three or four inches above the bottle, will always prevent that, by hindering them from settling thereon. This bottle should be placed upon a stand, or three-footed stool, made hollow at top to receive the belly, and let the mouth into a small pan ; the water by this means will gradually descend out of the mouth of the bottle as the Pigeons drink it, and be sweet and clean, and always stop when the surface of the water meets with the mouth of the bottle.

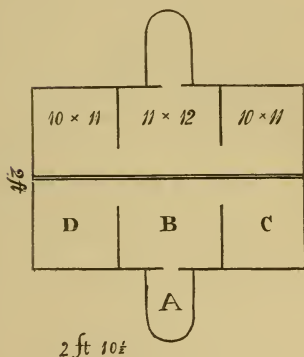
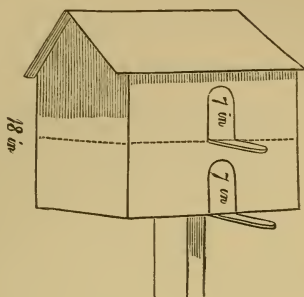
" The reason of which is evident ; for the belly of the bottle being entirely close at top, keeps off all the external pressure of the atmosphere, which pressing hard upon the surface of the water in the pan, which is contiguous to that in the bottle, is too potent for the small quantity of air which is conveyed into the belly of the bottle with the water, and which consequently, as being the lighter matter, rises to the top of the bottle, as it stands in its proper situation ; but the water being

sucked away by the Pigeons, that it no longer toucheth the mouth of the bottle, the confined air exerts its power, and causeth the water to descend 'till they become contiguous as before."*

Of the small Pigeon-houses that are affixed to walls, or elevated on poles, there is a considerable variety. Among the former, the best are those which are contrived on the principle of having two nesting-places accessible to each pair of birds. Sometimes the whim of the architect makes them to represent baby-houses, or mansions adorned with battlements and turrets, and one is amused with the incongruity of seeing a Pigeon peep out at a Gothic window. But strict criticism is not applicable to castles in the air. The great objection to all such Pigeon-houses is, that they are subject to every variation of temperature, are ill sheltered from pelting rains and stormy winds, and allow but little control to be exercised over the birds themselves. The best pole-house with which we are acquainted is that of which a plan and elevation is given in the accompanying cuts. A pair of birds take possession of the suite of apartments whose landing place is marked A. They will probably pass through the vestibule B when they first bring in straws for a nest, and deposit them in one of the chambers, as c: when the young are a fortnight or three weeks old, the hen will probably leave them mostly to the care of the cock, and make a fresh nest and lay in the opposite apartment D. As soon as the first pair of young are flown, c will be vacant for the hatching of a third brood, and so by shifting alternately from parlour to study, and never

* Treatise, pp. 8-10.

being idle, a good pair of parent birds will produce quite a little flock by the end of the summer.



But the old manorial Dovecote belonging to bygone days is a substantial cubical building, with a pyramidal tiled roof, surmounted by an unglazed lantern by which the Pigeons enter. It frequently forms the upper half of a square turret, and then can only be entered

by a ladder without, the lower half being used as a cow-house, cart-shed, or root-house. It is usually solidly built of either brick or stone, and the interior fittings are of brick also. Nesting-places are thus made to occupy the four entire walls, except where the opening for the door prevents them. The place gets cleaned out twice or thrice in the year, and is very snug; but as the birds which die are not removed when they ought to be, it is sometimes very offensive, to the human sense at least. In many places in the west of England brick nesting-boxes for common Dove-house Pigeons are built *outside* the walls, according to the exact pattern of those in the ancient Dovecotes, but the plan has none of the security, warmth, and quiet of the old system, and retains all its disadvantages. On Colonel Petre's estate at Westwick in Norfolk, an arch is thrown across the road, and the pediment and upper portions of each pier are tenanted by Pigeons. The idea was probably suggested by Capability Browne, who assisted in laying out the grounds. The effect is really very good, and the birds thrive and evidently enjoy the vicinity of the lake as a convenient watering and bathing place. But those gentlemen who reside in a rocky district might contrive the most picturesque of all Dovecotes, by hollowing out a space in the face of a cliff, and fashioning the entrance as nearly like a natural cavern as possible. A few pairs of Rock Doves once settled here in lockers hewn in the rock itself, would indeed feel themselves at home; and if an elevated spot were selected, their out-door proceedings would be observable from the mansion and pleasure-grounds generally, and could not fail to form an agreeable point of view.

The above-mentioned cubical, brick-built receptacles

are the Dovecotes to which so many privileges once attached, though they are now nearly obsolete. It is certain that Dovehouse Pigeons were kept for use and profit at an early period of English History. In Degge's "Parson's Counsellor," Ellis's edition, p. 314, we find that "there was a canon made by Robert Winchelsea, Archbishop of Canterbury, and his clergy, in the year 1305, whereby it was declared, that 'all and every parishioner shall pay honestly and without diminution to their churches the below mentioned tithes; that is to say, . . . of *Pigeons* . . . &c. &c., on pain of excommunication,' " although the claims of the clergy on these birds do not seem to have universally obtained in England. For in Blomefield's elaborate history of Norfolk we find that, "in the time of King James I. there was a long suit about the customs of the Rectory of Dice or Diss, and at length it was ended, and an exemplification under seal passed" of what the rector was to receive in kind, and what in lieu thereof. Goslings, Eggs, Bees, and Milk, are mentioned, but not a word about young Pigeons, a delicacy which would have been hardly omitted, had they been then and there subject to payment of tithes. Neither are they enumerated among the customary payments from copyhold tenants, which in those days seem to have been very strictly exacted. Among all the oppressive claims that were then insisted upon, none appears, that we can find, on the poor Pigeons or their Dovecote. See Blomefield's account of the Manor of Brisingham. The "Parson's Counsellor," at p. 343, indicates somewhat of a middle course: "But of young Pigeons in Dovecotes or in Pigeon-holes, about a man's house, tithes shall be paid if they be sold; but if they be spent in the family no tithe shall be paid for them."

But Mr. Borrow, who is always amusing, though he is often severe upon the ignorance of the parish priests of the Peninsula, gives an entertaining instance of clerical privileges in connection with Pigeon-houses. A priest, who afterwards talks of *Hoby Pablo's* (*Paul's*) *first letter to Pope Sixtus*, (Qu. ? the Epistle to the Romans,) is made to say, “ ‘I hope you will look in upon me, Don Jorge, and I will show you my little library of the Fathers, and likewise my Dovecote, where I rear numerous broods of Pigeons, which are also a source of much solace and at the same time of profit.’

“ ‘I suppose by your Dovecote,’ said I, ‘you mean your parish, and by rearing broods of Pigeons, you allude to the care you take of the souls of your people, instilling therein the fear of God and obedience to his revealed law, which occupation must of course afford you much solace and spiritual profit.’

“ ‘I was not speaking metaphorically, Don Jorge,’ replied my companion; ‘and by rearing Doves, I mean neither more nor less than that I supply the market of Cordova with Pigeons, and occasionally that of Seville; for my birds are very celebrated, and plumper or fatter flesh than theirs, I believe, cannot be found in the whole kingdom. Should you come to my village, Don Jorge, you will doubtless taste them at the venta where you will put up, for I suffer no Dovecotes but my own within my district. With respect to the souls of my parishioners, I trust I do my duty—I trust I do, as far as in my power lies.’ ”*

Private property in Pigeons is more strictly protected, and any infringement of it more severely punishable by English law, than is generally imagined. An Act

* The Bible in Spain, vol. i. p. 355.

passed in the second year of James I. enacts, " That all and every person and persons, which from and after the first day of *August* next (1604) following, shall shoot at, kill, or destroy with any gun, cross-bow, stone-bow, or long-bow, any Pheasant, Partridge, *House-dove or Pigeon*, Hearn, Mallard, Duck, Teal, Widgeon, Grouse, Heathcock, Moregame, or any such Fowl, or any Hare, . . . shall be by the said justices of peace, for every such offence, committed to the common gaol of the said county, city, or town corporate, where the offence shall be committed, or the parties apprehended, there to remain for three months without bail or mainprise, unless that the said offender do or shall forthwith upon the said conviction, pay or cause to be paid, to the churchwardens of the said parish where the said offence shall be committed, or the parties apprehended, to the use of the poor of the said parish, the sum of twenty shillings for every Pheasant, Partridge, *House-dove or Pigeon*, Hearn, Mallard, Duck, Teal, Widgeon, Grouse, Heathcock, Moregame or any such Fowl, and for every egg of Pheasant, Partridge, or Swans, and for every Hare, which any and every such person and persons so offending and convicted as aforesaid, shall take, kill, or willingly destroy, contrary to the true purport and true meaning of this statute," &c.—This law was enacted to reach "*the vulgar sort, and men of small worth*, making a trade and a living of the spoiling and destroying of the said games, who are not of sufficiency to pay the said penalties in the said statutes mentioned, nor to answer the costs and charges of any that should inform and prosecute against them."

Nor has time mitigated the penalty for such offences. The 7th and 8th George IV., chap. 29, sec. 33, which

repealed former Acts, tells us, "And be it enacted, That if any person shall unlawfully and wilfully kill, wound, or take any House-dove or Pigeon, under such circumstances as shall not amount to larceny at common law; every such offender, being convicted thereof before a justice of the peace, shall forfeit and pay over and above the value of the bird, any sum not exceeding *two pounds*." By the 67th sect. of the same Act, the magistrates may, in case of default in payment of value and penalty, commit for any term not exceeding two months.

A lord of a manor may build a Dove-cote upon his land, parcel of his manor; but a servant of the manor cannot do it without licence.

It hath been adjudged that erecting a Dove-house is not a common nuisance, nor presentable in the leet.

If Pigeons come upon my land and I kill them, *the owner* hath no remedy against me; though I may be liable to the statutes which make it penal to destroy them.

Doves in a Dove-house, young and old, shall go to the heir, and not to the executor.

The reader will now have had enough law, unless he be one of those foolish persons who are amateurs of it, and cannot live without it. This part of the subject shall be concluded with Varro's account of his Dove-cote, just before the commencement of the Christian era.

"The Περυστρεῖς, or Pigeon-house, is made like a large pent-house (*testudo*), covered with an arched roof, having one narrow entrance, with Carthaginian shutters, or wider ones, latticed on each side, that the whole place may be light, and that no serpent, or other

noxious creature, be able to enter. Within, the walls and roof are plastered over with the thinnest possible coat of mortar, and without also, around the shutters, lest any mouse or lizard should be able to creep up to the lockers; for no creature is more timid than a Pigeon. Round lockers for each pair are placed close in ranks. There may be as many rows as possible from the ground up to the roof. Each locker should have a separate opening for entrance and exit: within three palms (of capacity) each way. Under each row of lockers, shelves, two palms broad, to be used as a vestibule, and for them to walk out upon. A stream of water should run in, where they may drink and bathe, for these birds are very cleanly. Therefore the keeper ought to brush out the Pigeon-house every month; for what defiles that place is most suitable for agriculture, so that many authors have described this manure as excellent. If a Pigeon ails anything, it should be cured; if one dies, it should be removed; if any squabs are fit for sale, they can be brought out. Also, if any are about to lay, they should be removed to a separate place parted off by a net, whence the breeding birds can fly abroad, which they do on two accounts: first, that if they lose their appetite, or grow feeble from confinement, they may be refreshed by the open air when they go into the fields; and, secondly, because of the tie that binds them to their home; for they will return on account of the young which they have left, unless they happen to be intercepted and destroyed by a Crow or a Hawk.

“ Their food is placed around the wall in troughs, which are supplied from without by means of tubes. They delight in millet, wheat, barley, peas, haricot-

beans, vetches. Those who keep these wild and rustic Pigeons in towers, and in the tops of their farm-houses, should, as far as possible, introduce them to their Dovery at a good age; they should be procured neither too young nor too old, as many males as females. Nothing is more prolific than Pigeons, so that in forty days they conceive, and lay, and incubate, and rear. And they do this nearly the whole year: they only make an interval from winter to the vernal equinox. Two young ones are hatched, which, as soon as they have attained their growth and strength, begin to lay in company with their parents.”*

The reader, if he will be advised, will select a warm well-fitted loft, as the best place to keep Pigeons in. Having prepared that, the next step is not merely to furnish it with a sufficient population, but *to settle* the new colony in a state of contentment with their location. With all other poultry, it is enough to get them home, feed them, and leave them to inspect their new master's premises at their uncontrolled leisure. Not so with Pigeons. Bring a score fine birds to your comfortable loft; give them all the peas, and water, and salt they can wish for; let them out at the end of a day or two; and the chances are, that in a few hours they will all have disappeared, never to be caught sight of, by you, again. You then go to the dealer with a doubting face, and complain that all the birds you bought of him the other day have flown back again. He replies, “Sir, I am very sorry for that; very sorry indeed! Such good specimens; and, altogether, at a long price!”

“Well, but,” you say, “of course you will let me

* De Re Rusticâ, iii. 7.

have them back again ; the bill is paid, and I feel assured that you are a respectable tradesman."

"Thank you, sir," he rejoins with a bow ; "and you may believe that it would give me the greatest pleasure to assist you in recovering them ; but it is not to *this* place that they have returned. I bought them of parties who are strangers to me, and I really do not know *where* to apply to hunt them up for you."

At this you look very blank, and a little sceptical ; which calls forth the remark, "If you doubt my word, sir, you are welcome to look round and see. John ! take the gentleman backwards, and show him all the Pigeons we have on the premises."

You have no more to say, and depart. A fortnight afterwards, passing the shop of some other dealer, you observe Pigeons offered for sale, so exceedingly like those you had a little while ago, that you are struck with admiration at the certainty and perfection at which the art of breeding has been brought of late years.

But Pigeons must be made to form an attachment to their home, before they can be safely trusted with liberty. One great inducement to them to stay where they may happen to be brought to, is to find themselves in the midst of an old-established society ; for though monogamous, they are eminently social. But the founder of a *new* settlement of Doves is not possessed of this means of temptation wherewith to allure strangers. A common plan is to clip the feathers of one wing, with newly-purchased birds, in the expectation that the interval between that time and their next moult will be sufficient to reconcile them to a strange home, especially if they can be induced to breed meanwhile. But the operation does not always answer in

the end. Some birds, as soon as they regain their accustomed powers of flight, start off, taking away perhaps a companion or two with them, in search of their old haunts. And besides this, a clipped-winged Pigeon is as sad a sight as a blind greyhound or a lame race-horse. The poor thing cannot get up and down to its locker, without hopping like a Sparrow when it should glide like a Hawk. It tumbles in dirt while it should be mounting on air.

If the dealer *could* warrant that his adult birds of choice breeds *had never been flown*, but had been kept incarcerated from the moment of their sprawling out of the divided egg-shell—a warrant which he can but rarely give with satisfaction to his own mind—then the purchaser might safely keep them at home just for a few days, and afterwards let them out with but little fear of their leaving him. But it is a rare case to be able to place any such dependence on new-bought Pigeons. Whether they go back to their old home, or whether they simply get strayed and lost, the disappointment is the same to him who wishes to retain them. The only safe way to stock an unpeopled loft, in which the birds are intended to be allowed any degree of liberty in the open air, is to procure, by ordering them beforehand, several pairs of the young birds of the sorts required, as soon as they are able to peck for themselves, *i. e.*, at about five weeks old. Such colonists as these will take to their settlement without giving much trouble. The only fear of losing them is from their being decoyed away by older birds in the neighbourhood before they have fairly mated, and have become fully conscious that an independent home of their own is desirable.

When these young Pigeons are about six months old, or before, they begin to go together in pairs, except while associated with the entire flock at feeding times; and when they are resting on the roofs, or basking in the sun, they retire apart to short distances for the purpose of courtship, and pay each other little kind attentions, such as nestling close, and mutually tickling the heads one of another. At last comes what is called "billing," which is, in fact, a kiss, a hearty and intense kiss. As soon as this takes place, the marriage is complete, and is forthwith consummated. The pair are now united, companions, not necessarily for life, though usually so, but rather *durante bene placito*, so long as they continue to be satisfied with each other. If they are Tumblers, they mount aloft, and try which can tumble best; if they are Powters, they emulate one the other's puffings, tail-sweepings, circlets in the air, and wing clappings; while the Fantails and the Runts, and all those kinds which the French call *Pigeons mondains*, walk the ground with conscious importance and grace. But this is their honeymoon—the time for the frolics of giddy young people. The male is the first to become serious. He foresees that "the Campbells are coming" better than his bride, and therefore takes possession of some locker or box that seems an eligible tenement. If it is quite empty and bare, he carries to it a few straws or slight sticks; but if the apartment has been already furnished for him, he does not at present take much further trouble in that line. Here he settles himself, and begins complaining. "Oh, oh!" he moans, "do come and help me; do come and comfort me!" His appeal is sometimes answered by the lady affording him her presence, sometimes not; in which

case he does not pine in solitude very long, but goes and searches out his careless helpmate, and with close pursuit, and a few sharp pecks, if necessary, insists upon her attending to her business at home. Like the good husband described in Fuller's "Holy State," "*his love to his wife weakeneth not his ruling her, and his ruling lesseneth not his loving her.*" Wherefore he avoideth all fondnesse, (a sick love, to be praised in none, and pardoned onely in the newly married,) whereby more have wilfully betrayed their command, and ever lost it by their wives' rebellion. Methinks the he-viper is right enough served, which (as Pliny reports) puts his head into the she-viper's mouth, and she bites it off. And what wonder is it if women take the rule to themselves, which their uxorious husbands first surrender unto them?"* Well, the cock Pigeon is no he-viper, and so the hen obeys, occasionally, however, giving some trouble; but at last she feels that she must discontinue general visiting and long excursions; she enters the modest establishment that has been prepared for her performance of her maternal duties. A day or two after she has signified her acceptance of the new home, an egg may be expected to be found there. Over this she (mostly) stands sentinel, till, after an intervening day, a second egg is laid, and incubation really commences; not hotly and energetically at first, as with Hens, Turkeys, and many other birds, but gently and with increasing assiduity.

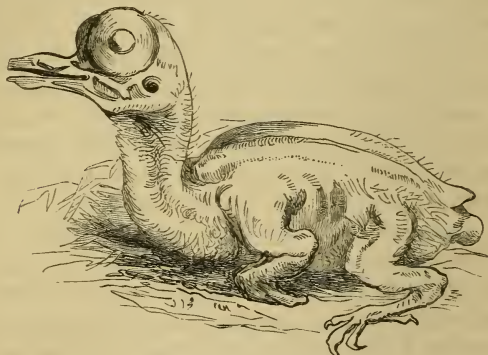
And now the merits of her mate grow apparent. He does not leave his lady to bear a solitary burden of matrimonial care, while he has indulged in the pleasures

* Book I. chap. iii.

only of their union. He takes a share, though a minor one, of the task of incubating; and he more than performs his half-share of the labour of rearing the young. At about noon, oftentimes earlier, the hens leave their nests for air and exercise as well as food, and the cocks take their place upon the eggs. If you enter a Pigeon-loft at about two o'clock in the afternoon, you will find all the cock birds sitting—a family arrangement that affords an easy method of discovering which birds are paired with which. The ladies are to be seen taking their respective turns in the same locations early in the morning, in the evening, and all the night. The older a cock Pigeon grows, the more fatherly does he become. So great is his fondness for having a rising family, that an experienced unmated cock bird, if he can but induce some flighty young hen to lay him a couple of eggs as a great favour, will almost entirely take the charge of hatching and rearing them by himself. We are possessed of an old Blue Antwerp Carrier (with probably a cross of the Runt), who, by following this line was, with but little assistance from any female, an excellent provider of pie materials, till he succeeded in educating a hen Barb to be a steady wife and mother. It quite put us in mind of those discreet old gentlemen who send their young brides to school before they marry them. The pair are still equally prolific. Indeed, Pigeons that have become attached to their home, and have made choice of a partner, no matter of what sort, cross-bred or otherwise, should never be destroyed. They will have rendered, if fairly fed, such substantial assistance to the pastry-cook in the course of their adult period (the duration of which is not well defined), as to

merit an immunity and free commons till the time of their natural decease.

At the end of eighteen days from the laying of the second egg (but the time cannot be invariably fixed within several hours) a young one will appear. Subsequently, at a short but uncertain interval, sometimes comes another chick, sometimes remains an addle egg. Of all young things, babies included, a new-hatched Pigeon ranks among the most helpless, as the annexed cut indicates with tolerable accuracy. Most little birds,



Pigeon-Chick, a day old.

if blind, if weak, can at least open their mouths to be fed; but these actually have their nutriment pumped into them. They have just instinctive sense enough to feel for the bills of their parents; they will make the same half-conscious movement to find the tip of your finger, if you take them in your hand. And this act of pumping from the stomachs of the parents is so efficiently performed, as to be, without offence, incre-

dible by those who have not watched the result. A little Pigeon grows enormously the first twelve hours ; after the third day, still more rapidly ; and for a time longer at a proportionate rate. If it do not, something is wrong, and it is not likely to be reared at all. The squab that remains stationary is sure to die. Sometimes, of two squabs, one will go on growing like a mushroom or a puff-ball, and the other will keep as it was, till the thrifty one weighs six or eight times as much as its brother or sister on which the spell of ill-luck has been laid.

The young are at first sparsely covered with long filaments of down ; the root of each filament indicates the point from which each stub or future feather-case is to start. The down, for a while, still hangs on the tips of some of the feathers during their growth, and finally, we believe, does not drop off from them, but is absorbed into the shaft of the growing feather. No domestic birds afford such good opportunities of observing the growth of feathers as Pigeons. Mr. Yarrell gives some minute details respecting the growth of that peculiar clothing with which this Class of Birds are outwardly protected, in the "Transactions of the London Zoological Society," vol. i. p. 13, which might be largely quoted did space permit ; but still, as it is, room must be found for a few sentences.

"The bulb or pulp, which is the foundation of each feather, has its origin in a gland or follicle of the skin ; and as the pulp lengthens, this gland or follicle is absorbed. The pulp still lengthening becomes invested on its outer surface with several concentric layers of condensed cellular membrane, from which the shaft, the filaments of both lateral webs, the colouring matter,

and the horny quill are severally produced; but anatomists appear to differ a little in opinion as to the exact manner in which the growth of the various parts takes place. The pulp, which nearly fills the barrel of the quill while the feather is forming, is connected with the body of the bird by an aperture at that end of the quill which is fixed in the skin, through which aperture or umbilicus a portion of the pulp is extended. The whole of the pulp, within as well as without the quill, is the only part of the feather which appears to be vascular, and the large feathers of the wing may be injected, while growing, from the humeral artery; but the feathers once perfected, the injection can no longer be sent even into the pulp. The membranes of which it was composed, the former *nidus* of vessels now obliterated, dry up, contract, and ultimately separating transversely into funnel-shaped portions (which remain in the barrel of each quill), are well known by the familiar term of pith."

The pairing of Pigeons is a practice so strictly adhered to by them, that if the number of male birds in a Dovecote is less than that of females, the supernumerary hens will pair with each other, and set up an establishment for themselves; if the males are in excess they will make an excursive tour in search of a mate, and either remain with her at her residence, or, which is just as frequently the case, bring the lady with them to their own home. The unmated hens that thus enter into partnership will go through all the ceremonies of pairing, make a nest, lay two eggs each, sit alternately and carefully, and, if they are members of a large flock, very often rear young. I had a couple of hen Pigeons that generally produced one or two young ones in this

way, thus proving that the conjugal fidelity of the male birds at least has been somewhat exaggerated; for they were *seen* in the fact of yielding to the blandishments of the independent spinsters. But the two eggs of the Pigeon produce one male and one female chick in so nearly an invariable manner, that any disproportion in the sexes, by which these aberrations from ordinary rules are caused, arises rather from disease or accident, than from any chance result of the hatchings. Ælian curiously mixes up true facts with superstitious notions on this subject. "They say that Doves incubate alternately; when the young appear the male spits on them, to avert by this means, it is said, the evil eye, and that they may not excite envy. The female brings forth two eggs, the first of which always produces a male, the second a female."* This point I have not verified, but it is very likely. Ælian, like others who do not strictly adhere to truth, is often doubted when his statements are really correct. He repeats, from Aristotle, the account of the solitary hens coupling together, which we ourselves know to be in accordance with their present habits.

When a hen Pigeon has the misfortune to lose her mate, by gunning or trapping, she is certainly uncomfortable for a while, but not inconsolable. She does not go pining on, like poor Lady Russell, exclaiming with her, "I cannot be comforted, because I have not the dear companion and sharer of all my joys and sorrows. I want him to talk with, to walk with, to eat and sleep with; all these things are irksome to me now; the day unwelcome, and the night so too!" She does not in any

* Var. Hist. i. 15.

way of this kind adopt the character which sentimentalists have assigned to her. Nor, to her credit, does she follow the example of those jaunty widows, who, having secured their jointure *on* the family estate, and their husbands *in* the family vault, then begin to enjoy life. It will not do for her to make insincere advances to any unmated male in the neighbourhood, be he bachelor or widower. She will soon find it as dangerous a game as playing at marriages is in Scotland, and will be driven to nest with a peck and a buffet, hard enough to show plainly that cock Pigeons, though they have no gall-bladder*, are yet a little choleric, and are not to be trifled with in matters of the heart. Flirtations ending in nothing, and *femmes seules* intending to keep so, are things intolerable in a columbine community. But she knows better, and soon follows the more respectable example of the Widow of Ephesus—a lady whom we all approve in our hearts, while we think it decent to blame and ridicule her openly.

If the Pigeons are to be kept entirely confined in their loft, the nests should be supplied with a little short straw in each; but if they are to be flown, and twigs and straws are at hand, it is better to leave them to make the nests themselves. This indulgence will allow them to exhibit a very curious habit. Just at the time of hatching, the cock bird brings new materials to

* Fuller (about 1650) alludes to this peculiarity in the anatomy of the Pigeon, and assumes that it ought to be known to all well-educated medical men. "*Unworthy pretenders to Physick are rather foils than stains to the Profession.* And commonly the most ignorant are the most confident in their undertakings, and will not stick to tell you what disease the *gall* of a *Dove* is good to cure."—The Holy State, Book I., chap. ii.

the nest, to increase the accommodation for his two little new-comers; so that if a pair are known to be sitting, and the cock is observed to fly up to the loft with sticks and straws in his bill, it is a sure sign that hatching is about to take place. The object is probably to keep the young squabs from contact with their own accumulated dung; otherwise it is very apt to clog their feet, and hang in hardened pellets to each claw. The same thing often happens to adult birds that are closely caged. The pellets should be removed by splitting them with a pen-knife; but it is best done by *two* operators; one, to hold the bird. Calling on a worthy old Pigeon-fancier, now no more, on looking round I could not help asking, "Why, where's your Bronze-wing? You have not parted with that?"—"Ah, Sir," he replied, "such a misfortune this morning! I took it out of the cage to clean its feet; it struggled, and I held it tight against my chest: too tight—for when I had done, the bird was dead! I would not have taken five guineas for it. It was sent me all the way from Sydney!"

The eggs of the different breeds of Domestic Pigeons are much less dissimilar than those of Fowls; they vary a little in size, but their shape and proportions are the same. I have never seen a buff Pigeon's egg, of the hue of those of the Malay or of the Cochin China Fowl, and not even a cream-coloured one. All the wild Pigeons' eggs, too, that I have had an opportunity of inspecting, as well as those of the Collared Turtle, look as if they were every one of them cast after the same model. It would be most difficult, on being shown an egg of any of the *Columbidæ*, to pronounce by which species it had been laid.

In the new-hatched young, likewise, of Pigeons, for the first few days but slight differences between the different breeds are to be observed,—so contrary to what we see in the gallinaceous birds, and in those water birds which are hatched in a state capable of locomotion, and of feeding themselves! These may at once be determined by an experienced eye; but it would be difficult for a fancier to point out characteristics of a little Pigeon just escaped from the shell. In the Rock Dove, there is a dark mark at the tip of the bill; in the Nuns the feet are dark instead of fleshy yellow; but they mostly run all after the same pattern. Pigeons are among those creatures that come into the world in a very rudimentary state; a wise ordinance, if we think for a moment. The very helplessness of the chicks is a convenience to parents that are obliged to be so much absent from home, and have to provide sustenance for their offspring often by long flights.

But in the young of almost all creatures we may see, with a glance, the Providential wisdom of the Almighty in Creation, exemplified by the different degrees of development of different organs in various creatures, in the earliest stages of their existence, accordingly as those organs are most demanded by their peculiar necessities. The Foal, which, in a state of nature, has to follow its mother over boundless grassy plains, has its legs extraordinarily developed in proportion to the rest of its body. For some months her milk supplies its principal nutriment; all *it* has to do, is to keep pace with her wanderings. The same feature is equally striking in Lambs and Kids. We have elsewhere noticed an analogous provision in the rapid growth towards usefulness in the wings of Pea-chicks and little Guinea-fowl. The small

birds which are hatched in warm nests, and there fed and brooded by their parents, want neither thick clothing nor locomotive power; accordingly, they are for a time weak and half-naked, but furnished with a wide mouth and gullet, and with a powerful digestion, to receive and make the most of every morsel which is brought to them by their heaven-instructed nurses. Contrast these feeble, gaping nestlings, with a brood of little Geese of any species, which from the first have to crop for themselves a day-long meal of grass, to the tenderest of which, often growing in low damp spots, they are led by their parents a few hours after escaping from the shell. These are covered, as by defensive armour, with a thick, stiff, coating of down, or rather fur, which hardly any wet will touch; and their bill, instead of being soft and gaping, is almost as efficient a pair of shears as that of Geese a twelvemonth old. That very extraordinary Australian bird the *Leipoa ocellata*, for a knowledge of whose strange habits we are indebted to Sir George Grey and Mr. Gould, does not sit upon its eggs, but makes a vast heap of sand, dried grass, &c., of such dimensions as to be mistaken by the first discoverers for a tumulus, or grave-heap of the Natives. The temperature of this fermenting mass, though not so warm as would be thought necessary for the purpose of hatching eggs, is still sufficient for the object required. "There are two great peculiarities about these eggs, besides their immense size in proportion to that of the bird, the average weight of the egg being eight ounces, while the *Leipoa* appears to have as large a body as the female Turkey, but is shorter on the legs: the first peculiarity is, that both ends are of nearly the same size; which form is peculiarly adapted to the position

in which they are always placed, *i. e.*, vertically, with the smaller end downwards; the egg being compressed in every part as nearly as possible towards the axis, in which the centre of gravity lies, there is the least possible tendency to its equilibrium being destroyed when it is placed in vertical position. A second peculiarity is the extreme thinness of the shell, and its consequent fragility. This is so great, that, unless the egg is handled with the greatest care, it is sure to be broken, and every effort which has been made to hatch these eggs under domestic fowls has failed, the egg having in every instance been broken by the bird under which it was placed.”*

What need of a firm shell for an egg which has not to bear a touch, from the moment of laying to that of hatching, but which is intended to remain an undisturbed deposit in a hot-bed, till the marvellous work of transmutation into a living creature shall have been completed? The substance of the shell was not wanted, and is not supplied;—the form, by which it rests securely in its place, has been provided for. And the Chicks, which have to effect their own deliverance from this cumbrous nursing cradle, are not like the flabby nestlings that are hatched on the branching twig, or in the snug thicket: “the young emerge fully feathered, and capable of sustaining life by their own unaided efforts. The young one scratches its way out alone; the mother does not assist it. They usually come out one at a time; occasionally a pair appear together. The mother, who is feeding in the scrub in the vicinity, hears its call and runs to it. She then takes care of

* Gould's Introduction to the Birds of Australia, p. 85.

the young one as a European Hen does of its chick.”* The Kangaroo, an animal which uses an almost convulsive mode of progression on its two hind legs, and would undoubtedly be seriously hindered and endangered by arriving at a gravid state, as heavy as that which is attained by quadrupeds that go on all-fours, has been relieved by the wisdom of its Creator from the impeding burden and incumbrance at a very early stage, and ordained to bring forth its young small and immature. But a warm pouch has been prepared for their reception, and as to themselves and their organs, they want but one—a mouth wherewith to imbibe milk: they seem to be all mouth; they secure themselves so firmly to the nipple, that they are not readily detached from it; in other respects they are, for some time, little more than shapeless lumps of living flesh. All that is wanted for their safety and their sustenance, is granted them abundantly. And little Pigeons, to which we have at last arrived, in our survey, are, like the young Kangaroos, provided with a disproportionately large, soft, absorbent mouth or bill—the very thing they want, in order to live by suction on the milky aliment secreted by the parent birds. The bill of a young Pigeon is a ridiculously prominent feature, a laughable caricature of what we might suppose a bill ought to be. In new-hatched squeakers it measures a considerable part of the creature’s whole length; a frightfully ugly appendage in the eyes of whoever forgets to observe the exact fitness with which it is adapted to the end in view, namely, to be the instrument of rearing a feeble nestling to attain the independent condition of a robust adult.

* Gould’s Introduction to the Birds of Australia, p. 85.

Now let us suppose any of these peculiarities of imperfect organization to be changed or reversed,—that the mouth of the Foal was twice as convenient as it is for draining the udder of its dam, but that its legs were only half as capable of keeping company with her progress over the prairies,—that the gallinaceous birds, which make their nest on the hard earth, and are rough in their motions, and scratch, never gently, with their feet,—that they had laid eggs as unwieldy and fragile as those which the Megapodidæ or Brush Turkeys drop and then bury in a soft stratum of sand and grass,—that the preponderance of growth in the young Pigeon, instead of being directed to its bill, had been bestowed upon strengthening its legs, or quickly pluming its wings,—suppose any such alterations as these, and what fearful disasters would ensue! So that even what we call imperfect organization is made to subserve a wise purpose; out of weakness and deficiency are brought forth strength to the individual, security and permanence to the race; just as in the moral world, what at the time are often thought afflictions hard to bear, prove in the end to have been the steps leading to future welfare.

The study, too, of these incomplete commencements of existence in all animated beings, and of the way in which that very incompleteness is made to answer a purpose, must, one would say, *prove* that “the progression of forms,” “the evolution of species,” and their advancement by some innate energy of their own, or some “law” of nature, from fishes to reptiles, from reptiles to birds and quadrupeds, from quadrupeds to quadrumans or monkeys, and from monkeys to human beings with a reasoning soul, is an error as complete as

is the "creation of species by Man" of the continental naturalists. When Man sets to work to create a species of sentient animal, he manages it so well, that his results are of a very short-lived nature. And if Man bungles and mismanages his work so badly, the convenient Goddess Chance, is not likely to succeed much better.



Pigeons fighting.

CHAPTER III.

CLASSIFICATION OF PIGEONS.

Proposed classes.—Ambiguous nomenclature.—The question of origin.—Ground of the received opinion little investigated by naturalists.—Estimate of Temminck's authority.—Difficulties and doubts suggested by the accounts of former ornithologists.—The reader to sum up the evidence.—Scheme of arrangement.

As it is our object to consider these birds mainly in reference to their actual or possible domesticability, it will be found most convenient to arrange them into three classes; the first consisting of those which are found in the domestic state only, and never met with wild. It is a mistake to suppose that any of the Fancy Pigeons ever become even feral. A few half-breeds between them and either the Blue Rock, or the Dove-

house Pigeon, may, *very* rarely, assume an independent mode of life; but wild Fantails, or Nuns, or Powters, or Jacobins, are things unheard of. Our second class will embrace those Pigeons which are found both in the domestic and the wild state. These are the birds that seem now and then to oscillate between the abodes of men and the solitude of cliffs and mountains. The third class will comprise those which appear quite incapable of domestication, and are only to be retained in captivity by strict aviary confinement, without which restraint they would immediately fly back to their woods and wildernesses. It is possible that a few domesticable birds, whose tempers have as yet been untried, may be included in this third class, which is so large, embracing such a number of species, that we can only just touch upon some of them in the present volume. It will be seen also that this arrangement does not in the least clash with the classification of the systematic Naturalist, but is quite independent and irrespective of it.

At this early stage of our history we may be asked, and may as well endeavour to answer the question, what is the distinction between the words "Pigeon" and "Dove."* *Pigeon* is of Gallic, *Taube* (pronounced

* The name of the Pigeon, like that of several of our other domestic birds, has been used by voyagers, in the poverty of their ornithological vocabulary, to denote certain species of oceanic waterfowl. Thus we often read of the Greenland Dove; but the only Dove which can support the rigorous climate of Greenland is a Gull subsisting on fish, blubber, or the lower marine animals. We often in childhood, while reading Cook's and still earlier voyages, have been struck with the mention of Port Egmont Hens, and wondered whether the Hens which our sailors were so delighted to find in antarctic regions, were as pretty as our neighbour's Bantams, and whether the Port Egmont Cocks, which we took for granted to exist in due proportion to the Hens, were as splendid as the red game fowls with which we were acquainted. The charm is dispelled by

Dowby) of Teutonic derivation. That is all the difference we can discover between them. They are mostly convertible terms, *Dove* being preferred to denote the smaller species. If we followed the analogy of "beef," "mutton," "veal," &c., in distinction to "ox," "sheep," "calf," &c., *Pigeon* should be applied to the bird in its dead, *Dove* in its living state. But such is not strictly, though it is partially, the custom; for Shakspeare speaks of "a dish of Doves;" and we usually apply the first term to the larger, and the latter to the smaller species of the Columbine family.

The arrangement now adopted will give an opportunity for passing gradually from those Pigeons which are completely domestic, to those that are utterly wild; and then will arise the question, What is the origin of the domestic races? respecting which, we are anxious to exhibit neither a timid silence nor a presumptuous decision. There can be no harm in stating one's sincere belief; and I must say that, having kept Pigeons, though with intervals, from childhood, and having thought much upon the subject, my code of natural historical faith is this: that the domestic races of birds and animals are not developments, but creations. I

discovering that the Port Egmont Hens are Skua Gulls, and that the flesh, though eatable in the form of a sea-pie by men who know what it is to have a salt-water appetite, would scarcely do to set before dainty epicures to represent boiled chicken with white sauce. Again, *Pintado*, *i. e.*, painted, a term by which the Guinea-fowl is sometimes known, is also still applied by sailors in the South Atlantic to a bird whose habits are entirely marine; but in this case it would appear that the traverser of the ocean has the first claim to the title, which was subsequently, or at least not earlier, bestowed upon the only addition to our poultry stock which Africa has furnished, on which account we have scrupulously abstained from thus using the word in our former volume, considering that the designation ought to be yielded in courtesy to the favourite bird of the old Portuguese discoverers.

believe that the Almighty gave to the human race tame creatures to serve and feed it, as designedly as he gave it eyes to see with, and hands to work with. I do not believe that the Dunghill Fowl is derived from the Jungle Cock, the Sheep from the Mouflon, the Dog from the Wolf, or the Runt from the Rock Dove, by any parentage whatever. This is a great heresy; but philosophers will be tolerant, and will not too hastily condemn the holder of such erroneous opinions to the fag-got and the stake, "for his soul's health."

Is there any higher authority than Buffon and the French writers, for the assertion that the Blue Rock Dove is actually the source and origin of all the Fancy kinds? Both in Temminck and in Buffon, the Pigeons are done by a variety of hands, and the accounts in each are contradictory with themselves. In both authors, the *Columba livia*, as occupying the Dovecotes of the old régime, is well described; much better than any other species. Buffon says, that in these Dovecotes, containing perhaps hundreds of birds, the occurrence of even a white or albino bird is rare. His account of those Dovecote Pigeons much reminds us, in its details, of the domesticity of Bees*. Have Bees been rendered domestic by man?—or was not their immediate capability for the

* I remember being asked by a gentleman, whether, if he placed an empty hive in his garden, the Bees that were flying to and fro there, on perceiving the convenience, would enter it one by one, and so congregating, abide and store it with honeycomb: which made me laugh in my sleeve at his small acquirement of natural history. But it would not be so great an absurdity, in a thinly-peopled country, to build a Dove-cote in a site that was as suitable for Pigeons as a garden is for Bees, with the intention that wild Rock Doves should come and tenant it, especially if they were decoyed, in the first instance, by a pair of young birds established there, and by the tempting allurements of a few peas and a little salt.

occupancy of hives when prepared for them by man, implanted in them by their Creator—or by nature, if the term be preferred; but, have *we* had much to do with it? Or, have *we* created any fancy breeds of Bees, in the *same* way that we are supposed to have originated fancy breeds of Pigeons?

It is true that in all modern works on Ornithology which we have read, it is taken for granted, without inquiry, as an acknowledged fact which does not admit of doubt, that our Fancy Pigeons are all derived, by the transmuting effects of domestication, from the Rock Dove. Now no one need doubt that *one* of our dovehouse Pigeons is derived from the wild Rock Dove; but we believe that it is not generally known how *identical* they are, how closely the wild bird approaches the domestic one, how much the occupant of the dovehouse clings to the manners of its forefathers, and how soon it is drawn off to pursue exactly their course of life. Mr. Yarrell's beautiful figure of the Rock Dove might be taken for a well-selected specimen of the domestic race descended from it. The only self-originated variations amongst dovehouse Pigeons that we have heard of, are different depths of hue. There sometimes are produced a few light blue or lavender individuals, like those which occasionally occur amongst Guinea fowl; but further changes are attributable to intermixture with stray tame or Fancy Pigeons. And it will be seen that the combination of existing kinds is a very different thing to the originating of novel breeds.

Unfortunately, writers on natural history, whose works it is impossible to read without pleasure and admiration, have received this opinion, as a sort of scientific heir-loom, and have transmitted it undisturbed

to their disciples and successors. Zoologists are too busy with the vast array of objects they have to set in order, to be able to spare much time on the diversities of domesticated animals, and are, I may be permitted to say, too easily contented to receive without investigation the traditional accounts offered to them by persons whom they believe good authority in *that* department. Mr. Selby, in his elegant volume on Pigeons, leans mainly on "the opinion of the most eminent naturalists as to the origin of the peculiar varieties in the domesticated bird, which is strongly insisted on by M. Temminck in his valuable work, the "*Histoire Générale Naturelle des Pigeons*." Temminck's work on the Pigeons and gallinaceous Birds is really so valuable, that it has, we believe, remained untranslated only because it is unavoidably deficient in giving the habits and *life* of the creatures it describes; but he avows his distaste for the study of Fancy Pigeons; "it is only with a degree of disgust that we occupy ourselves with them: one can scarcely treat of these degraded races, except by simple suppositions, which are for the most part made at hazard." But "suppositions" in natural history, which are merely "hazarded for the most part," ought not to be made use of as trustworthy arguments to support the imaginative theories of Buffon, or as safe premises whence to deduce such schemes of displaying the processes of Creation, as are put forth by the Author of the "*Vestiges*." After Temminck's confession of disgust at his subject, we may withhold our implicit confidence in his authority when he says, "I combine in this article (*Columba livia*), and regard as so many descendants of the *Biset sauvage*, all the dovehouse Pigeons, the diverse races of Pigeons of the aviary, which,

by the form of their beak and their principal parts, resemble this bird, the Domestic Pigeon of naturalists, the pretended species of Roman Pigeon and its varieties, and the Rock Pigeon or *Rocherai*. These birds produce together fertile individuals, which reproduce in their turn, and form by the interference of Man, those singular races which we remark in the Pigeons of the aviary; these races are maintained by the care which is taken to assort them. Of these Pigeons, especially, the different shades are innumerable. Men, in perfecting them for their pleasure, have multiplied these races more from luxury than necessity; they have altered their forms, and their sentiment of liberty is found to be totally destroyed. (?)

“The production of great numbers is the source of varieties in species. Our Dovecotes, peopled with a quantity of Pigeons accustomed and familiarised to these buildings, have successively offered accidental varieties, among which the most beautiful, and those with the most singular variety of colours, will be sure to be chosen. These, isolated from the flock, reared with assiduous care and assorted according to fancy, have successively generated all these singular races of which Man is the Creator, and which, without him, would never have existed.”

The process, or rather, we believe, the project for the creation of new species by Man, runs on smoothly enough in the prospectus here given; but what people, who are sceptical about the result, want, is, the sudden appearance in a Dovecote of blue Rock Pigeons, of *two* nestlings as much differing from their parents, as the Fantail, or Turbit, do from them. These instances are not recorded; nor can any owner of the vastest flock

produce such. Several such examples would be strictly demanded to establish any novel principle in physiology; but the current, oft-repeated notion, that *all* Fancy Pigeons are modifications of the Rock Dove, is allowed to pass as a matter of course.

Temminck's aversion to the task of disentangling domesticated species, led him to lean in these matters far too much on the guidance of such men as Buffon, Olivier de Serres, and Parmentier. The first believed that climate alone could effect such transformations as would now be accounted miraculous. However, when Temminck does think for himself, he arrives at a conclusion not exactly consistent with the views of his predecessors, or with his own introductory announcement. "The Turbit," (*Le Pigeon à Cravate*,) he says, "does not willingly pair with other Pigeons. This breed appears to us to have constant characters which scarcely permit us to suspect that it was originally derived from the Rock Dove; the bill, excessively short, thick and hard, separates these Pigeons widely from other breeds; the difficulty which amateurs experience in making them propagate with the different breeds derived from the Rock Dove, joined to their small stature, destroy in some sort all supposition in respect to their specific identity. We must nevertheless, not permit ourselves to form any conjectures as to the origin of these *Pigeons à Cravate*; the date of their enslavement, which runs back into ages too remote, will be an obstacle to all strict inquiry."

It does not follow, that because the origin of a race of beings is removed beyond our search, that we are therefore at liberty to propose the first theory that comes to hand, or, indeed, any theory, except those of either *Autochthonism* (native growth) or importation, which is not

supported by the strongest proofs, and which will bear the most searching test. When a chemist announces to the world a new discovery, a new mode of combining or separating material atoms, his declaration is listened to, and other chemists attempt to verify his facts. If they can succeed in doing what he asserts that he has done, they are sure he is right; if they cannot they believe him to be wrong, and to have been deceived by some error in his observations.

Now we have in our aviaries certain curious forms of Pigeons, very remarkable and very unlike each other. We are told they are all derived by selection, and combination, and special modes of rearing (by *soins particuliers assidus*—very favourite words of Temminck), from another race as different from them as they are from each other. Proofs of this transmutation are as much wanted, as they are of the chemist's solitary experiment, till it is repeated. We demand, therefore, to have the Zoological experiment repeated: let man create (we hardly dare use the expression) a *truly new species*, or race, or breed of Pigeons, *quite unlike those now existing*, by the stated modes of combination and selection, or in any other way. The London Zoological Society, with every means which wealth, power, and talent can command, has not done it. The experiment cannot be verified. The conclusions have been arrived at too hastily.

Mr. Yarrell, to whom British Zoology owes so much, both for the valuable information he has imparted to the world, and the elegant form in which it has been given—he also, unfortunately, has declined to include in his work figures, or lengthened descriptions, of those birds which exist in this country only in a domesticated state. Scientific naturalists all seem to avoid the task

of investigating the history of domesticated creatures ; and when they are compelled to touch upon the subject, are apt to generalize hastily, and glide through the different forms that are presented to them with unsatisfactory rapidity. Mr. Yarrell, however, asserts, like Temminck, without offering the least evidence, " that there appears to be no reason to doubt that the Rock Dove is the species from which our domestic Pigeons were originally derived. . . . The numerous and remarkable fancy Pigeons, *however first established*, are now maintained and perpetuated by selection and restriction, and some of them are among the most curious of *Zoological results*. In some instances a remarkable change has been effected in the character of the feather; thus in the Jacobins, more frequently for brevity's sake called Jacks, there is a range of feathers inverted quite over the hinder part of the head, and reaching down on each side of the neck as low as the wings, forming a hood. Another change, equally extraordinary, has been effected in that variety called the Broad-tailed Shakers; the tail-feathers in these birds, all beautifully spread, amount to thirty-six, though the normal number of tail-feathers is but twelve.

"The changes, however, in some Fancy Pigeons are not confined to the feathers, but modifications in form are effected in the bones. A comparison of the Short-faced Tumbler and the Carrier, exhibits the first-named with a very small round head, and a short, straight, conical beak, not more than half an inch in length, with a proportionally elongated head."*

It is surprising, if the effects of domestication are

* British Birds, vol. ii. p. 263.

really so great, that abundant food has not made the Pigeons produce more than their usual two eggs, as well as change their appearance so completely. It ought to make them extend their laying from the dual to the plural number. This would be a less remarkable change than those which are supposed to have taken place. But it never happens. We ought, in truth, to be more thankful than we are for the *varied* bounty of Providence in creating the Pigeons to be prolific of young, and to supply an abundance of flesh in their proper regions, while the Fowls are made to offer to us, in profusion, a different kind of aliment.

In the case of domesticated birds and animals, the science of Comparative Anatomy hesitates to establish the same distinctions that it is made, in the proficient hands of Mr. Yarrell, to determine with the Swans, and by M. Temminck with the Guans, and which, to some minds, it ought to draw between Pigeons, unless the actual process of transition from the Rock Dove to a Fan-tail or Carrier has actually been observed and recorded while going on, and can be repeated whenever Man chooses to set about the task. And students, who are not satisfied with the mere dictum and opinion of a fallible, though learned, authority, have a right to require either documents proving *how, when, and where* these races were *first established*, or else the exhibition of a few *more* zoological results, to make it possible to their belief that any such results ever have been produced in the way asserted.

I have thus made bold to state a few reasons for historic doubts whether the French *savans* and their followers are standing on quite sure and impregnable ground, when they derive all these curious races from

the Rock Dove, as the results, in the first instance, of domestication, special treatment and *soins particuliers*.

In the first place, when any wide departure from the usual course of nature is announced as having taken place, it is required that those who make the announcement, produce evidence of the appearance of the prodigy, and the circumstances that attended it. Now the usual course of nature in these days is, that the offspring of all creatures resemble their parents, within tolerably close limits, which, though not exactly defined, are so well understood that any excessive aberration from them is immediately remarked. Exceptions to this usual course do occur from time to time, in the shape of imperfect animals and monsters, with a deficiency, or a duplication of parts, double-bodied, sometimes even headless. Such are incapable frequently of existence, much less of reproduction. In hybrids, too, between species or varieties that are allied with sufficient closeness to be able to procreate young together, the usual course of nature is, that the offspring bear a varying proportion of resemblance to both parents: their forms are intermediate between the two, not something unlike to either. Now the production of a pair of Fantails, as an example, from a pair of Rock Doves, would be a circumstance so out of the course of nature, as to constitute one of those prodigies demanding every unquestionable confirmation. If it be said that the Fantail, or, as the French call it, *Pigeon Paon*, or Peacock Pigeon, is a hybrid, there is no known Pigeon, nor any other bird, capable of being the progenitor of such an offspring, with the Rock Dove. But a class of naturalists assert that it is the offspring of the Rock Dove. They affirm a prodigy to have taken place, with-

out being able to point out the time, the locality, or the means. We surely cannot be condemned for professing utter scepticism in such an unsupported theory, and a disbelief in so unattested a history. Other sceptics have expressed their doubts on far weightier matters, with much more conclusive testimony to allay those doubts.

Secondly, in the absence of these requisite particulars from the upholders of the transmutative theory of creation, we are led to search among the older ornithologists for what *can* be found to illustrate the point. We do not there light upon any mention of the sudden appearance of new forms in the ancient Dovecotes.

Aldrovandi (the volume to which we refer bears date 1637) speaks of several of the Fancy Pigeons, not as new, or produced by breeding, but as *peregrinas*, foreign introductions, and points out the traditional source from whence some of them were obtained. The Jacobines, "which are called *culcellatæ*, *monachinæ*, and at Ferrara, *Sorellæ*, or Nuns," he styles the *Columba Cypria*, or Dove of Cyprus. Another sort is the *Columba Cretensis*, or Cretan Pigeon; and there are, besides, the Persian and the Turkish. That the ancients were not acquainted with so many varieties as ourselves is to be imagined, from their scanty geographical knowledge and limited foreign intercourse. Here is the amount of Aldrovandi's information: "But whether M. Varro, Aristotle, and the other ancients, were acquainted with the species of Pigeons which our times now furnish, I not only do not doubt about, but am not even led to believe it, although I well know that the ancient Romans had an insane passion for Pigeons, as I have before related from Pliny. Now-a-days, such a diver-

sity of Pigeons is found in Europe, and principally, as I hear, with the Belgæ, and, among these, with the Dutch, that I could scarcely credit what I was told by a man who in other respects is most trustworthy. I also remember that this nation, if any, takes an extravagant delight in Pigeons, and therefore keeps as many sorts as possible. For that gentleman told me that, besides the common domestic and Rock Pigeons, of which they had besides an immense number, there was a certain sort generally twice the size of the common dove-house kind, with bristly, that is feathered feet, which, while it is flying, and while it is cooing, swells out its crop into an immense tumour; the larger they display it in their flight, the better bred they are pronounced to be. That kind is called *kroppers*, that is, large-throated Pigeons, with which name they also come to us, for they are sometimes brought even to Italy. Ornithologus records that he observed Pigeons at Venice, which were almost equal to Hens in size; but his belief that they are the produce of tamed Ring Doves of the largest size, is in my judgment entirely wrong, for Ring Doves are never tamed. But whether those, which that gentleman said were kept in Holland, be the same with the Campanian Pigeons of Pliny, who writes that the largest are bred in Campania, I dare not affirm, although meanwhile I would not in the least deny. Bellonius certainly is of his opinion, and asserts that those are mistaken who suppose that Pliny and the other ancients were unacquainted with them."

The intelligent reader, who can bring to this subject a mind unprejudiced by previous statements and opinions, and who can, as he would be advised by an impartial judge, banish from his thoughts whatever he

may have heard out of court, will, when he has read the foregoing remarks, perhaps be led to inquire whether the ideas current amongst the great majority of naturalists be not a clever, plausible, and well-expressed hypothesis, rather than a series of facts which we may admit without sure and unmistakable evidence for them. The evidence is wanting: the steps by which so wonderful a change in the form and habits of the same creature have been made, cannot be shown; and we may be allowed, without offence, to hesitate before we give in our adherence to the grand theory, that a *gradual* change is going on in the nature and condition of all animated creatures.

We would wish to speak of Temminck and his contemporaries with all due respect. Natural science owes them much; they performed well the difficult task of arranging and describing the existing forms which were offered to their study. Without this arrangement and classification, as far as it proceeded, their followers could have little hope of further advancing science. They performed a great work, and we ought to be most thankful to them for it. But that is no reason why we should set up Temminck, or Buffon, or Lamarck, or Blumenbach, as idols to be blindly worshipped, as was Aristotle of yore, and push aside as profane and heretical any suspicion which *will* intrude itself, that some of their conclusions, on a most mysterious and difficult question, may possibly have been hasty, or even incorrect;—a question, too, for information respecting which they confessedly relied upon other and less acute persons, and which they really had not time and leisure, amidst their many herculean tasks, to investigate for themselves. Temminck at least indicates, by many ex-

pressions which he casually lets fall, that had he pursued such an inquiry personally, he would have been more slow in putting forth those views, which we have ventured to discuss, of the derivation of *all* our Fancy Pigeons from the *Columba livia*, or Rock Dove.

The reader shall now have our scheme of arrangement:—

I. Pigeons which are found in the domestic state only:—

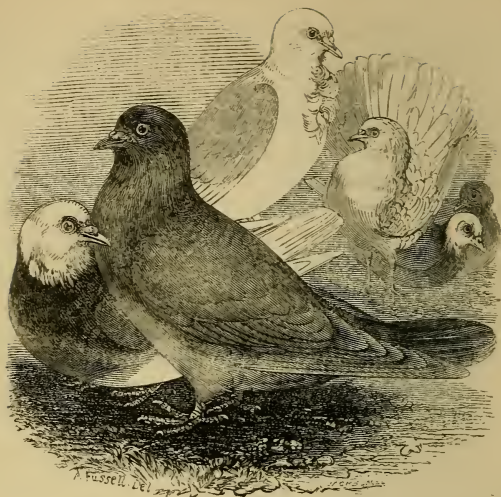
Fantails.	Turbits.
Runts.	Barbs.
Trumpeters.	Tumblers.
Archangels.	Bald Pates.
Nuns.	Powters.
Jacobins.	Carriers.
Lace Pigeons.	Frizzled Pigeons.

II. Pigeons which are found both in a domestic and a wild state:—

Blue Rock Dove (<i>Columba livia</i> of authors).	Indian Rock Pigeon (<i>Columba intermedia</i> of Strickland).
Dovehouse Pigeon (<i>Columba affinis</i> of Blythe).	Collared Turtle (<i>Turtur risoria</i>).

III. Pigeons not capable of true domestication:—

The Passenger Pigeon.	Bronze-winged Pigeons.
The Long-tailed Senegal Pigeon.	Harlequin Pigeons.
&c. &c.	&c. &c.



Bald-pate. Runt. Turbit. Fantail.

CHAPTER IV.

DOMESTIC PIGEONS.

FANTAILS; their powers.—Effects of crossing.—Accident to one.—Pigeon Paon.—The lean poet of Cos.—Runts.—Pigeon mondains.—Comparison of eggs and weights.—Synonyms of Runts.—Runts at sea.—Rodney's bantam.—Peculiarities of Runts.—Runts in Italy.—Effects of crossing.—Trumpeters.—Archangel Pigeons.—Nuns.—Jacobines.—Columbarian distinctions.—Supposed caricature.—Turbits.—Temminck's ideas.—Owls.—Progress of the young.—Rapid growth.—Barbs.—Tumblers.—Their performance in the air.—Feats of wing.—The Almond.—Peculiarity of form.—Learning to tumble.—Baldpates.—Helmets.—Powters and Croppers.—Their carriage, flight, and colouring.—Defects and remedies.—Crosses.—Carriers.—Castle of the birds.—How they find their way.—Phrenological hypothesis.—Carriers in Turkey.—Sir John Ross's birds.—Explanation.—Antwerp Carriers.—De Beranger.—English Carriers.—Oriental origin.—Lace and Frizzled Pigeons.—Eggs and young of the Columbidae.—Quarrels and attachments.—Mating.—Love of home.—Food.—Merits of the Runts.—Etymology of the Trumpeter.

FANTAILS are by no means the miserable degraded monsters that many writers would induce us to believe

them to be. They may be, and often are, closely kept in cages, or dealers' pens, till they are cramped and out of health. The most robust wild pigeon would become so under the same circumstances. But if fairly used, they are respectably vigorous. It is a mistake to suppose that they are deficient in power of flight, unless their muscles have been enfeebled by long incarceration. Their tail is not so much in their way, and therefore not so unnatural (if hard names be allowed to have any force), as the train of the Peacock. It is true the tail of the Fantail consists, or ought to consist, of thirty-six feathers—three times the number which most other Pigeons can boast of; but it is an excellent aerial rudder notwithstanding. A pair of Fantails given me early this spring (1850) by a friend living a few miles distant, were suffered to fly very soon after their arrival here, on the supposition that they could not possibly return home by their own carriage. Nor did they. But they took a very decided flight of half a mile *in the direction* of their old home, and then finding they could not make out their way, flew back again. Then, instead of nesting in the Pigeon-loft, the cock bird chose to carry his bundle of twigs to the gutter on the roof of our house, in a snug nook just out of the way of the rain-stream; and they would have hatched there but for the late severe frosts of that season, which addled their eggs.

When Fantails breed with other Pigeons, in the offspring sometimes the fan tail entirely disappears, sometimes a half fantail remains; and I am cognisant of a case where, by coupling a true Fantail with such a bird as the last mentioned, the pure race was re-established. It is probable (but I am not able to state it) that in

this case the true Fantail was a male, and the half-bred of male Fantail parentage. In cross-bred Pigeons, as far as my own observations have gone, the male influence is nearly paramount. Similar facts have also occurred in the much larger experience of the London Zoological Society, as I am assured by Mr. James Hunt, their intelligent head-keeper. Results with the same tendency have proceeded from crosses in other genera, as is instanced in Lord Derby's wonderful experiment with the common *Colchicus* and *versicolor* Pheasants, as detailed in the December number of the Quarterly Review for 1850, by which it appears that a solitary male bird may prove competent to introduce his species to Great Britain, by a temporary alliance with a female quite an alien to his own blood. In a letter from Mr. Edward Blythe, dated Calcutta, October 8, 1850, he kindly informs me, "A native friend of mine has this season bred two fine Hybrids between the male *Pavo muticus* and the common Peahen, apparently a male and a female. They take much after the papa, and the male *should* be a splendid bird when he gets his full plumage." The same is the rule with many quadrupeds. Mules are not greatly in favour with ladies and gentlemen in England, and therefore the less is known about them by educated people; but the humbler class of Horse and Donkey dealers will tell at once, by the ears and hoofs, *as well as by the temper and disposition*, whether any Mule, offered for sale, had a Mare or a Donkey for its mamma. The Mule children of the latter animal are much more valuable, as they exhibit not only the form, but the docility of the Horse rather than of the Ass.

Fantails are mostly of a pure snowy white, which, with their peculiar carriage, gives them some resem-

blance to miniature Swans. Rarely, they are quite black; occasionally, they are seen white, with slate-coloured patches on the shoulders, like Turbits. A singular habit is the trembling motion of the throat, which seems to be caused by excitement in the bird. The same action is observed in the Runts, in a less degree. The iris of the Fantail is of a dark hazel, the pupil black, which gives to the eye a fulness of expression quite different to what is seen in most other birds. I mention this, because Colonel Sykes, in the Transactions of the Zoological Society*, makes the colour of the iris an important guide in determining the affinities or dissimilarities of species, believing it occasionally to manifest even generic distinctions. Now amongst fancy Pigeons the iris varies greatly, and is thought of much consequence, as is known to every amateur. The cere, at the base of the Fantail's bill, looks as if covered with a white powder. These birds, Willughby tells us, are called *Broad-tailed Shakers*; "*Shakers*, because they do almost constantly shake, or wag their heads and necks up and down; Broad-tailed, from the great number of feathers they have in their tails; they say, not fewer than twenty-six. When they walk up and down, they do for the most part hold their tails erect like a *Hen* or *Turkey-Cock*."†

A friend writes, "I had a white Fantail Pigeon which lived nine years, and died at last almost blind with old age. But the most curious thing which ever happened to her, is that she fell down one of the hothouse chimnies, and then walked along about sixty feet of the flue, that was nearly choked up with soot, before she got into the furnace, in which there luckily was no fire. The door happened to be shut, and poor

* Vol. ii. pp. 7, 8.

† Willughby, p. 181.

old Fanny lived there five days without food before her prison door happened to be opened. When at last she came forth, instead of being milk white, she was all dingy, like a blackamoor.”—*J. IV.*

Pigeons generally can bear long fasts, and perform long journeys, better than common fowls. Their tenaciousness of life under starvation must be considerable. I have seen the remains of a Pigeon that had been starved to death in a hole in a church wall; and the webs of the feathers had all been absorbed, leaving the shafts only remaining before the poor bird died at last.

“The *Pigeon Paon* or Peacock Pigeon,” says Temminck, “is so named, because it has the faculty of erecting and displaying its tail nearly in the same way in which the Peacock raises and expands his dorsal feathers. This race might also be called *Pigeons Dindons*, or Turkey Pigeons, their caudal feathers being also placed on an erector muscle capable of contraction and extension at pleasure.”—But here M. Temminck is surely in error: the tail of the Fantail is *always* expanded and displayed, and when other domestic Pigeons do spread their tail in the actions of courtship, it is brought *downwards*, so as to sweep the ground like a stiff train, not *upwards* like the Turkey or the Peafowl. “When they raise their tail,” they bring it forward; [and it is always raised and brought forward, except in flight;] “as they at the same time draw back the head, it touches the tail; and when the bird wishes to look behind itself, it passes its head between the interval of the two planes which compose the tail. They usually tremble during the whole time of this operation, and their body then seems to be agitated by the violent contraction of the muscles. It is generally while making

love that they thus display their tail ; but they also set themselves off in this way at other times." That is, in plain English and in matter of fact, the position in which the tail-feathers are fixed, is unalterable.

" These Pigeons are not much sought by amateurs ; they seldom quit the precincts of their aviary ; apparently the fear of being carried away by the wind (which, acting forcibly upon their broad tail would infallibly upset them),* is the reason why they do not venture far from their domicile, nor undertake long journeys. Lastly, these Pigeons which cannot by their own powers travel far, have been transported to a great distance by Man ; *perhaps, even, they are not natives of our climate, for many doubts arise against their specific identity with the wild Rock Dove.* Striking characters, such as the number of tail-feathers, do not permit us to consider the wild Rock Dove as the type of the Fantail Pigeons.

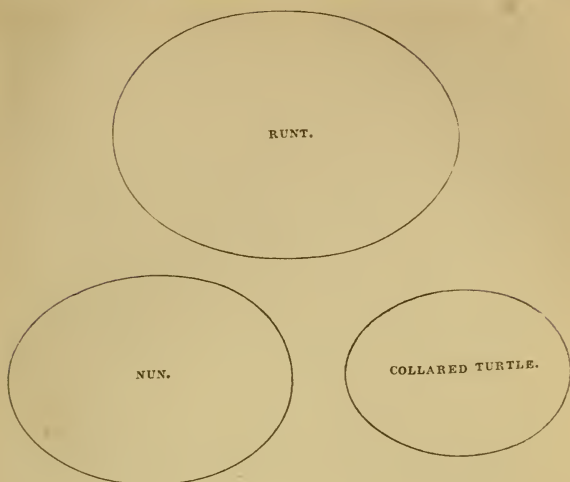
" The Fantails are furnished with a considerable number of caudal plumes ; the greater part of indigenous and exotic species of Pigeons, have generally only twelve tail-feathers, more or less. The choicest have thirty tail feathers ; the majority of the Fantails have thirty-two and even thirty-four, but such are rare.

* In this respect the Fantails remind us of Ælian's Philetas, the lean poet of Cos, who was so slim and slight, that, being liable to be carried away by the slightest acting force, he wore (they say) leaden soles to his sandals, lest he should be borne off by the wind, when it happened to be high. " But," remarks Ælian gravely, " if he was so weak as to be unable to withstand the wind, how could he manage to carry about such a burden with him ? I do not believe everything that I read (*he was a writer*) ; *εμὲ μὲν οὖν τὸ λεχθῆν οὐ πείθει.*" The reader, therefore, need not load his Fantails with leaden clogs on the questionable example of Philetas the Blown-away.

“The Shakers, and those which have the tail only partially elevated, are of this race.”

The RUNTS are by far the largest and heaviest race of domestic Pigeons, and are less known and cultivated in this country than they deserve to be, mainly because their powers of flight are not such as to afford much amusement to the amateur. But they are very prolific, if placed in favourable circumstances. A pair, for which I am indebted to Mr. James Kemp, of Great Yarmouth, last season (1849) produced twelve young ones. Their heaviness unfits them for being the occupants of ordinary dovecotes; and they are best accommodated in a low house or nesting-place, raised only a few feet from the ground. Many a rabbit-hutch would be very easily convertible into a convenient Runt-locker, where the birds might be petted, and wherein they would bring forth abundantly. The Runts prefer walking and resting on the ground, to perching on buildings, or strutting on roofs*. Hence Buffon very properly calls them *Pigeons mondains*, which we might English by applying to them the designation of Ground-Doves, were not that term already appropriated by a family of foreign wild Pigeons. The eggs of Runts are much larger than those of other breeds, as may be seen by the outline here given, of the exact natural size, of eggs of the Runt, the Nun, and the Collared Turtle, to show their relative proportions. Buffon truly says that the *mondains* are nearly as big as little Hens. A note of

* Their love of slightly-elevated nesting-places has long been observed. “Perchance these may be the same with those which, *Aldrovandus* tells us, are called by his countrymen *Colombe sotto banche*, that is, Pigeons under forms or benches, from their place; of various colours, and bigger than the common wild *Pigeons* inhabiting Dove-cotes.”—Willughby, p. 181.



their weight, and of that of a few other Pigeons, made Nov. 6, 1849, will show how much more ponderous they are than the rest of their brethren. Of course, live weights are given.

	lb.	oz.
Pair of Leghorn Runts	2	7
„ Jacobins	1	7½
„ Cinnamon Tumblers	1	5
„ Archangel Pigeons	1	10¼
„ Blue Rocks	1	6¼
„ Croppers	1	14¾
„ Nuns	1	10
„ Barbs	1	9
„ Blue Antwerp Carriers	1	12¼
„ Black do. do.	1	11½
Pair—Owl Cock, mated with Turbit Hen	1	7
Pair of Collared Turtles	0	13
Another pair of Leghorn Runts	3	7

The contrast of weight is remarkable: but the point respecting Runts which most deserves the notice of speculative naturalists, is their extreme antiquity. The notices of them in Pliny, and other nearly contemporary writers, are but modern records; for Dr. Buckland enumerates the bones of the Pigeon among the remains in the cave at Kirkdale, and figures a bone which he says approaches closely to the Spanish Runt, which is one of the largest of the Pigeon tribe. Ever since the classic period these birds have been celebrated among the poultry produce of the shores of the Mediterranean.

“ The *greater tame Pigeon*, called in *Italian*, *Tronfo* and *Asturnellato*; in *English*, a *Runt*; a name (as I suppose) corrupted from the *Italian Tronfo*: though, to say the truth, what this *Italian* word *Tronfo* signifies, and consequently why this kind of Pigeon is so called, I am altogether ignorant. Some call them *Columbæ Russicæ*, *Russia-Pigeons*, whether because they are brought to us out of *Russia*, or from some agreement of the names *Runt* and *Russia*, I know not. These seem to be the *Campania* Pigeons of *Pliny*. They vary much in colour, as most other domestic birds: wherefore it is to no purpose to describe them by their colours.”*

Their name of *Russia-Pigeons*, I can in part explain. The Runts in my possession were purchased at Great Yarmouth, as “*Russian Carriers*”—admirable letter-carriers they would be, when they can hardly carry themselves through the air! But they came by their title thus: Vessels from Yarmouth go laden with red herrings to the Mediterranean and the Levant, and having exchanged their cargoes there for fruits, oil,

* Willughby, p. 181.

maccaroni, &c., frequently sail thence direct to Russia—to St. Petersburg or Archangel,—without touching port at Yarmouth, though they may even perhaps pass through the Roads, and get a glimpse of their town, and speak a friendly vessel or two. The Yarmouth sailors are very fond of buying Pigeons in the Mediterranean ports, and they are great pets on board ship*. They breed there in lockers and hen-coops, and are sometimes allowed their liberty, and permitted to fly round about the vessel, while she is pursuing her course on a fine day. If the breeze is but steady they get on very well, and enjoy themselves as much as they would in calm weather on shore. The mathematical reader will remember, that as the wind and the ship are both proceeding (we will suppose the ship to be sailing right before the wind) in one direction, the *excess* of the velocity of the wind above that of the ship is all the Pigeons would have to contend with; and that, in a fast sailer, is nothing formidable, while a moderate breeze is blowing. It is squally weather that would be their ruin; and then they are kept safe within-doors. At the Russian ports the ship parts with her cargo of fruits, &c., perhaps also with some of her Pigeons, and returns home, laden with tallow, hemp, hides, &c.; and, perhaps, the choicest of the birds are after all brought home to please a friendly

* These feathered favourites at sea are particularly interesting. Here is one which ought to be immortalised. It would do capitally either for a statuette or a bas-relief.

“In the famous victory of the 12th April, a little Bantam Cock perched himself upon the poop of Rodney’s ship, and at every broadside that was poured into the ‘Ville de Paris,’ clapt his wings and crew. Rodney gave special orders that this Cock should be taken care of as long as he lived.”—Southey’s Common Place Book, 2nd Series, p. 607.

townsman or townswoman. But they come from Russia ; and therefore, Russian they are called. From Alexandria is usually obtained a large feather-footed bird, much resembling, if not identical with, the Trumpeter. These are often styled Muscovy Pigeons. This summer I purchased in Great Yarmouth, of my thoroughly honest friend, Jack Hall, a pair of birds which were allowed to retain their name of Egyptian Pigeons. The vessel, on board which they were cruising, was wrecked in the Roads, and the crew and passengers, including four pairs of Pigeons, all saved. They were Runts of the second degree of magnitude, cinnamon coloured, with a slight vinous under tint.

These Pigeons vary in colour ; also in having feet feathered or not ; and somewhat in bulk ; but the limits of their variations are not hard for the experienced *eye* to detect, though not easy to describe. Fulness of the cere at the base of the bill, terrestrial habits of life, and plumpness and inactivity of body, are among their principal characteristics. Their prevailing colours are shades of brown, light slate colour, and white. Their cooing is less distinct than in other breeds, having a sort of muffled sound. They tremble when excited, though not so much as the Fantails. "Spanish Runt," "Leghorn Runt," are both names which indicate their Mediterranean home. Many travellers in Italy have noticed, with retrospective relish, the size and flavour of these excellent birds. We remember once at Montefiascone having complained (not very angrily) of a dinner-bill, which seemed to amount to more pauls than might have been expected in the not too stylish *Albergho* of that not too important town ; but we were met by the unanswerable reply from the handsome *padrona*, "Yes, Signore, the

nota is high; but *Ecco!* Signore, you have had a flask of the famous *Montefiascone—il rè di vino!*—and *two* Pigeons!”

The reader must have another instance; all the better that it is not a modern one.

“Wee came home by the island of Nisida, some two miles in compasse, belonging to one gentleman, who in it keeps all creatures tame by force, haueing no way to get from him, in sight of Caprea, once the delight of Tiberius, and so under the mountain Pausilippo again, with torches in our hands, it being night before wee could reach it, which wee passed safely; the better by reason that the holy virgin is gouuernesse of this cauern, and hath a chappell dedicated to her in the middle of it. By this time you must coniecture wee had a good stomach to our supper, which wee made of pigeons, the best heare without controuersy in the world, as big as pullets.”*

Notwithstanding the disproportion of size and incongruity of habits, Runts breed freely with other domestic Pigeons. One of my cock Runts mated with a Bald-pate: all their offspring, except one bird, resembled their father entirely, and their mother not at all. Those were all eaten, so we did not see what *their* young would turn out to be. Another male Runt mated with a Nun, with like result; all conventual character disappeared from the offspring, and the illegitimate family suffered extinction in a pie. Mr. James Kemp had a hybrid between a Brown Runt and a White Fantail, in which the fan tail was quite obliterated. The bird had *no* brown feathers, being principally white: so that it resembled neither

* Mr. Edward Browne to Mr. Craven, 1664.

parent. Which was male and which female I am unable to state. It was, however, larger than ordinary-sized Pigeons.

“The TRUMPETER,” says the Treatise, “is a bird much about the size of a Laugher (some sort of Runt ?), and very runtishly made; they are generally pearl-ey’d, black-mottled, very feather-footed and leg’d, turn-crown’d like the Nun, and sometimes like a Finnikin, but much larger, which are reckoned the better sort, as being more melodious; but the best characteristic to know them, is a tuft of feathers growing at the root of the beak; and the larger this tuft is, the more they are esteemed: the reason of their name is from their imitating the sound of a trumpet after playing; the more salacious they are, the more they will trumpet; therefore, if you have a mind to be often entertained with their melody, you must give them plenty of hemp-seed, otherwise they will seldom trumpet much, except in the spring, when they are naturally more salacious than usual.”

It seems more probable that the Trumpeter took its name from its military air: the helmet-like turn of feathers at the back of the head, the booted legs, and the fierce moustache at the base of the bill, give it quite a soldier-like appearance. I have not heard much in their “trumpetings” that differs greatly from the cooing of other Runts (for such they may be considered to be): perhaps the inspiration at the end of the coo may be a little more sonorous. But Pliny’s description (lib. x. 52) is applicable to all domestic Pigeons. “In all, the song, similar and the same, is completed in a trine verse, besides a groaning conclusion. In winter they are mute, in spring vocal.” A well-grown moustache is the point

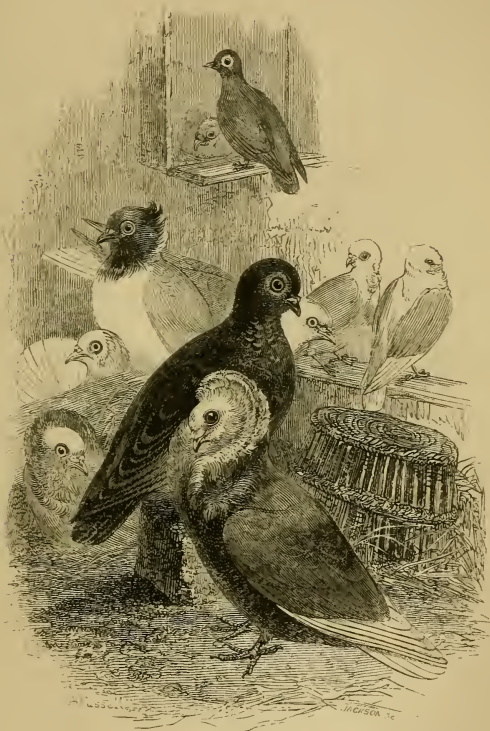
which the amateur is advised most strongly to insist upon. Good Trumpeters are not common. Occasionally they are met with pure white.

The ARCHANGEL PIGEON is not mentioned in any treatise on the subject that I have met with : nor can I ascertain whether it owes its name to having been originally brought to us from the Russian port, or *viâ* Archangel from some other quarter, as Tartary or India. My first glimpse of the bird was at Knowsley ; and I have since, through the liberal kindness of the Earl of Derby, become possessed of a pair from those. His lordship had them from the Messrs. Baker, of Chelsea. The colouring of these birds is both rich and unique. The head, neck, and fore part of the back and body, is chestnut, or copper-colour, with changeable hues in different lights. The tail, wings, and hinder parts of the body are of a sort of blue-black ; but many of the feathers on the back and shoulders are metallic and iridescent—a peculiarity not usual in other domestic Pigeons. The chestnut and blue-black portions of the bird do not terminate abruptly, but are gently shaded into each other. There is a darker bar at the end of the tail. The iris is very bright orange-red : the feet clean and unfeathered, and bright red. Archangel Pigeons have a turn of feathers at the back of the head very similar to that of the Trumpeter, or to Aldrovandi's woodcuts of his *Columba Cypria*. It is the colouring rather than the form which so specially distinguishes them. Their size is very much that of the Rock Dove. It is curious, that of two Archangel Pigeons sent me by a Yorkshire friend, one had the "turn" at the back of the head, and the other was smooth-headed, or rather smooth-occupied ; and the young they have

produced, when two have been reared, have mostly, if not always, been one "turned" and one smooth-pated bird, exactly as their parents. The older Ornithologists furnish no hint of Archangel Pigeons, that we have been able to find. A cock of this kind is now assiduously courting one of our cream-coloured Tumblers; but I am unable to describe the result of their crossing with other domestic breeds, which they doubtless will do. They are sufficiently prolific to be kept as stock birds; but they are at present too valuable, either as presents or for exchange, to be consigned to the hands of the cook. Still it is with the higher rather than the lower class of Pigeon-fanciers that they are in much request. Bigoted Tumbler-breeders and panting blowers-up of Powters will look on a pair of glowing Archangels with almost the same contemptuous glance that they would bestow on a parcel of "Duffers," or dovehouse Pigeons, packed up to be shot at for a wager.

NUNS are dear little creatures. The former breed belongs to the "gravel eyes," these are pleasing instances of the "pearl eye," the iris being delicately shaded from pink into white. Their colouring is various. "The most beautiful specimens," says Temminck, "are those which are black, but have the quill feathers and the head white: they are called *Nonnains-Maurins*." But the most usual sort, and exceedingly pretty birds they are, are what Buffon styles *coquille hollandais*, or Dutch shell Pigeons, "because they have, at the back of their head, reversed feathers, which form a sort of shell. They are also of short stature. They have the head black, the tip (the whole?) of the tail and the ends of the wings (quill feathers) also black, and all the

rest of the body white. This black-headed variety so strongly resembles the Tern (*hirondelle de mer*) that some persons have given it that name."



Nun.

Barb.

Jacobine.

"The Nun," says the Treatise, "is a bird that attracts the eye greatly, from the contrast in her

plumage, which is very peculiar, and she seems to take her name entirely from it, her head being, as it were, covered with a veil.

“Her body is all white; her head, tail, and six of her flight feathers ought to be entirely either black, red, or yellow, viz., if her head be black, her tail and flight should be black likewise; if her head be red, then her tail and flight should be red; or if her head be yellow, her tail and flight should also be yellow; and, accordingly, they are called either red-headed Nuns, yellow-headed Nuns, &c., and whatever feathers vary from this are said to be foul; for instance, should a black-headed Nun have a white, or any other coloured feather, in her head, except black, she would be called foul-headed; or a white feather in her flight, she would be called foul-flighted, &c.; and the same rule stands good in the red-headed or yellow-headed ones; *though the best of them all will sometimes throw a few foul feathers, and those that are so but in a small degree, though not so much valued in themselves, will often breed as clean-feathered birds as those that are not.*

“A Nun ought likewise to have a pearl eye, with a small head and beak; and to have a white hood, or tuft of feathers on the hinder part of the head, which the larger it is, adds the more beauty to the bird.”*

In size, Nuns are somewhat less than the common dove-house Pigeons. Their flight is bold and graceful; they are very fairly prolific, and by no means bad nurses. A peculiarity in the new-hatched chicks of the black-headed Nuns is, that their feet are frequently, perhaps always, stained with dark lead colour. All

* Treatise, p. 124.

the Nuns are great favourites, except with those fanciers who are devoted to monstrous Tumblers and Powters. A flock consisting entirely of the black-headed sort has a very pleasing effect; but one containing individuals of *all* the procurable varieties of colour, (the arrangement of this on the birds, and their shape, being exactly similar,) would have a very charming appearance.

I have seen a half-bred Nun and Carrier in which the Nun almost entirely predominated: respective sex of the parents, unknown.

JACOBINE, Ruffled Jack, Ruff, *Pigeon carme*, *Columba cucullata*, and Capuchin, are names all applicable to the same type of bird, however bred or crossed, and all derived from some reference to ecclesiastical costume*. Where there are Nuns, it is natural to look for Friars in the neighbourhood; and here they are, only not half so pretty, nor half so good. The Jacobines are about the most unproductive of our Pigeons; they lay small eggs, which they incubate unsteadily, and, if they hatch them, nurse carelessly. It is best to transfer their eggs to some more trustworthy foster-parents. These are included among the Pigeons technically called “toys;” Tumblers, Powters, and Carriers being alone considered worthy of the serious attention of fanciers. It is really amusing to read of

* “*Jacobines*, called by the *Low Dutch*, *Cappers*, because in the hinder part of the head, or nape of the neck, certain feathers reflected upward encompass the head behind, almost after the fashion of a Monk's hood, when he puts it back to uncover his head. These are called *Cyprus* Pigeons by *Aldrovand*, and there are of them rough-footed. *Aldrovandus* hath set forth three or four either *species* or accidental varieties of this kind. Their bill is short. The *Irides* of their eyes of a pearl colour, and the head (as *Mr. Cope* told us) in all white.”—Willughby.

the superiority and importance conferred by the possession of a first-rate stock of Pigeons. The following quotation will show the notions entertained on the subject by genteel people in 1765 :—

“ It may not be amiss, before I conclude this head (*The Almond Tumbler*), to remark a distinction which the society of Columbarians make between Pigeon-fanciers and Pigeon-keepers, viz., such gentlemen who keep good of the sort, whether they are almond, black-mottled, or yellow-mottled Tumblers, Carriers, Powters, Horsemen, Dragoons, Leghorn or Spanish Runts, Jacobines, Barbs, Turbits, Owls, broad-tailed Shakers, Nuns, Spots, Trumpeters, &c., are stiled fanciers; on the contrary, those who keep trash are called Pigeon-keepers, of which last denomination there are a surprising number. It is prodigiously amazing and unaccountable, that any gentleman will bestow food upon such as are not in reality worth the tares they devour, and can be accounted for no other way than by supposing such gentlemen utterly unacquainted with the true properties and perfections of the several species they entertain, which, it must be confessed, is rather a harsh supposition (except they breed for the spit only, *and even then their table might be as amply supplied by the better sort*), the expense of keeping either being equal in every respect, the difference arising only in the purchase of one pair. Should any objection be made to the expence of the first purchase of the better sort, I answer it is infinitely cheaper to bestow four or five guineas on one pair of good birds, than to begin with bad ones at eighteen-pence a pair, the value of which can never be enhanced. I hope I need not here apologize, or be thought ill-natured by those gentlemen

whose fancy may differ from mine, in giving my real sentiments and opinion so freely, as I have advanced nothing but matter of fact, and what is the result of many years' experience."*

One feels inclined humbly to intreat this connoisseur, if he were surviving, to condescend to look in one day, and wring the necks of all one's "trash." There is a degree of sublimity in the idea of pigeon-pie composed of birds at five guineas the pair!

The same author, however, describes the points of the Jacobine so clearly, that we cannot do better than refer to him again for aid. "It has a range of feathers inverted quite over the hinder part of the head, and reaching down on each side of the neck to the shoulders of the wings, which forms a kind of hood, something like a friar's, from whence it takes the name of Jacobine; the fathers of that order wearing hoods to cover their baldness. Therefore the upper part of this range of feathers is called the hood; and the more compact these feathers are, and the closer they are to the head, so much the more the bird is valued: the lower part of this range of feathers is, with us, called the chain, but the Dutch call it the cravat—the feathers of which should be long and close, that were you to strain the neck a little, by taking hold of the bill, the two sides should fold over each other, which may be seen in some of the best. *Sometimes the pigeon-dealers cut a piece of skin out between the throat and the chest, and sew it up again, by which means the chain is drawn closer.*

"The Jacobine should have a very small head, with

* Treatise, p. 65.

a quick rise, &c., and a spindle beak, the shorter the better, like that of a Tumbler, and a pearl eye. In regard to the feather, there are various coloured ones, such as reds, blues, mottled, blacks, and yellows; the preference of which seems to be given to the last mentioned; but whatever colour they are of, they should have a clean white head, with a white flight and white tail. Some of them have feathers on their legs and feet, others have none; and both sorts are equally esteemed according to the different inclinations of those who fancy them.

“The following being in itself so uncommon, and a fact, I cannot help taking notice of it; a person the other day passing through Fleet Street, seeing a print of this bird at a shop-window, stopped to make his observations thereon, and having well viewed it, he went in and purchased it, declaring to the seller, that he never saw a stronger likeness in his life; and as for the wig, it was exactly the same he always wore. For he imagined it altogether a caricature of one of his intimate acquaintance; and the person of whom he bought it, did not think it necessary at that time to undeceive him.”

The TURBIT* is the breed which the French writers have supposed to be the most isolated of the domestic races, and to have greater claims than any of them to specific distinction. I cannot say that my

* “*Turbits*, of the meaning and original of which name I must confess myself to be ignorant. They have a very short thick bill, like a *Bullfinch*; the crown of their head is flat and depressed; the feathers on the breast reflected both ways. They are about the bigness of the *Jacobines*, or a little bigger. I take these to be the *Candy* or *Indian Doves* of *Aldrovand*, the Low Dutch *Cortbeke*.”—Willughby.

own experience or observations confirm this remark. It is just as distinct, and no more so, as the other domestic breeds. Whatever right they may be adjudged to have to specific honours, the Turbit also has, but no greater.

Temminck complains of the difficulties which amateurs experience in making them propagate with other races supposed to be derived from the *Biset*; but two brown-shouldered hen Turbits in my possession have paired and bred, one with an Owl (Pigeon) the other with a Rock Dove, or *Biset* itself. In the former case, the young mostly resembled one the male and the other the female parent, with a few foul feathers on each; in the second case the young resembled the male parent, or Rock Dove, with scarcely a trace of the maternal plumage. Instances sometimes occur of sterile males among Turbits; a fact which may have led Temminck to suppose that these birds entertain some general aversion to the females of other breeds; but like cases of infecundity occur with China Ganders and even with Turkey Cocks.

Buffon says of the *Pigeon Cravate*, or Turbit, that it is scarcely larger than a Turtle, and that by pairing them, hybrids are produced, a statement which is quoted by Temminck. But in one very important point it differs from the Turtle; its time of incubation is the same as that of other domestic Pigeons, whereas the Collared Turtle at least hatches in a much shorter period.

According to the Treatise, "This Pigeon is called by the Dutch Cort-beke, or Short-bill, on account of the shortness of its beak; but how it came by the

name of Turbit I cannot take upon me to determine.

“It is a small Pigeon, something larger than the Owl; its beak is short like that of a Partridge; and the shorter it is the more it is valued; it should have a round button head, with a gullet; and the feathers on the breast (like that of the Owl) open, and reflect both ways, standing out almost like a fringe, or the frill of a shirt; and the bird is valued in proportion to the goodness of the frill or purle.

“In regard to their feather, the tail and back of the wings ought to be of one entire colour, as blue, black, dun, &c., the red and yellow ones excepted, whose tails should be white; and those that are blue should have black bars cross the wings; the flight feathers, and all the rest of the body should be white, and are called by the fanciers according to the colour they are of, as black-shouldered, yellow-shouldered, blue-shouldered Turbits, &c. They are a very pretty light Pigeon; and if used to fly when young, some of them make very good flyers.

“There are some Turbits all white, black and blue, which by a mistake are often called and taken for Owls,” pp. 127-8.

And well they may be: distinction of colour is all that can be perceived by common eyes. It is said that in Owls, the feathers round the neck ought to have a certain, slight, hardly describable twist: but wishing only to describe the really typical domestic forms, I hesitate to give the Owls any paragraph to themselves.

The iris in the brown-shouldered Turbit is dark hazel surrounding a large black pupil. The attention

of naturalists may be directed to the similarity in the shape and air of the head in the Fantail, the Jacobin, and the Turbit, all races with striking peculiarities of feather. Turbits, if the faulty members of the family are rejected, are a satisfactorily prolific race.

The results obtained from a bird of this breed, will serve as a special instance of the rapid rate of increase of the young among the *Columbidæ* in general.

On the 27th of June, 1849, a male blue Owl that had mated with a female black-headed Nun, hatched one chick. The second egg, being clear or unfertilised, had been taken away from them some days previously. The egg producing this chick had been cracked three or four days before hatching, by a blow from the Owl's wing, given in anger at my examining it. The chick had grown *much* in the few hours intervening between its exclusion and the time of my seeing it. It was blind, and covered with long yellow, cottony down. In the afternoon of the 1st of July, it first opened its eyes to the light. Now the average weight of a domestic Pigeon's egg is about half an ounce; rather more for the large breeds, as Runts and Powters, and rather less for the smaller ones, such as the parents of our present chick. A Collared Turtle's egg weighs about a quarter of an ounce. But on the 3rd of July, this little creature, that on the 27th of June would hardly balance a half ounce weight, now weighed *four ounces and a half*, and its feathers, or rather its feather-cases, were pricking through its skin like a Hedgehog's spines. On the 4th it weighed 5 oz. 6 dr.; of course part of that weight was made up of the contents of the crop, which now contained a portion of hard food. July 6th, weight $8\frac{1}{4}$ oz.; feather-cases very long and much started, the

feathers themselves much protruding. July 9th, weight 10 oz.; only one parent attending to it. July 11th, weight $10\frac{1}{2}$ oz. July 14th, 11 oz. July 16th, $11\frac{1}{2}$ oz. July 18th, $11\frac{3}{4}$ oz.; the growth seemed now principally directed to the quill feathers, which accounts for its less rapid increase in weight. July 26th, the weight of the squeaker was $12\frac{1}{4}$ oz.; it was capable of flying and feeding itself, and only wanted strength and a little corroborative time, to be a perfect independent adult bird. At the same date of July 26th, the weight of the Owl, its male parent, was only $11\frac{1}{2}$ oz.; so that, in about a month, its own young one had exceeded it in weight. It takes many quadrupeds several years to attain the bulk of their parents; the chick of a common hen, at the end of a month from hatching, is very far indeed from equalling its mother in weight; but in the case of Pigeons, we have the enormous increment of growth from half an ounce to twelve ounces and a quarter, within that short period. The wonder is accounted for by our knowledge that, for the first fortnight, the chick has the assistance of *two digestions* in addition to its own; and that during the month it has to undergo little or no exertion of body or brain, but merely to receive a liberal supply of ready-prepared nutriment.

In another case, a Powter mated to a Nun produced one chick on the 16th of July, 1849. Its weight when hatched was half an ounce. Its bill was not pink, but tinged under the cuticle with a dark pigment; this character it derived from its Nun parent. But on the 15th, another pair of Pigeons, both Powters, had hatched a couple of chicks, one perhaps during the previous night, the other not till the middle of the day; their joint weight was then 1 oz. On the 16th, it had reach-

ed to $1\frac{1}{4}$ oz. only: and on the 19th, the smallest chick died, seemingly of starvation, as the old ones appear to have neglected it: the other chick had been transferred on the 18th to the Nun and Powter which had hatched on the 16th. Under their care, on the 20th the eyes of both squabs were open, and a *little* hard food was in their crops. On the 26th, their joint weight was 15 oz.; their crops were half filled with hard food, the webs of the feathers were protruding through many of the feather-cases, and the birds advanced as rapidly towards maturity as in the former instance.

BARBS are elegant little birds; very quiet and demure in their appearance, and yet full of fun and activity. Their chief characteristic is a naked, wrinkled, red skin round the eye, which the books say, most likely with truth, increases till they are four years old. But Pigeons improve much, both in appearance and in constitutional powers, with age. They live, I believe, and continue fertile, much longer than is generally imagined. Many young pairs of Pigeons are condemned because their owners do not exercise sufficient patience with them; and from their peculiar habit of settling in a fixed home, to which they will return, if they can, at all hazards, it is not easy to possess a good stock of birds without passing through this preliminary discipline of patient pigeon-feeding. The best, though not the only colour for Barbs, is an entire black. In such, the prismatic shadings of the neck are particularly beautiful. The rate at which they will breed is not to be complained of: and as to their crossings, the rule of the paramount influence of the male seems to obtain. A little hen Barb that had lost her mate, was soon taken under the protection of a blue Antwerp Carrier. The

young she has reared have borne but little resemblance to herself, and a marked one to their papa.

And now for the TUMBLERS, the prettiest of the pretty. In approaching them one had need have more courage than Master Slender in the presence of sweet Anne Page; for the dealers and ultra-fanciers are standing by, like so many duennas or chaperons over a supposed marketable beauty or vendible heiress; and whatever eloquence may escape the lips of the suitor who does not quite answer their views, coolness and reserve are the reception he must expect to meet with. But of all the Doves that cleave the air, give me, *in its unsophisticated and vulgarly bred state*, the pretty little Tumbler. Birds at two or three shillings the pair are better than those at two or three guineas, in spite of the Treatise; the learned author of which we may magnanimously gainsay, without fear of contradiction, as he is long since quiet in his grave. The Tumbler, whether you Frenchify it as the *Pigeon Culbutant*, or Latinise it as the *Columba gyatrix*, is sure to attract notice for its intrinsic excellences. Do you want a bird to eat? It is as good as any; a merit, though a humble one. It breeds as freely, and with as little trouble; and there is nothing so neat and trim as it is among domestic birds, not even the most perfect of the Sebright Bantams. With its little round head and patting red feet, it is exactly a feathered goody-two-shoes. And then, its performances in the air! beating all the *Cordes Volantes*, or Tightrope Diavoli, into disgraceful inferiority. It is decidedly the most accomplished member of the aerial ballet. Pirouettes, capers, *tours de force*, and *pas d'agilité*, all come alike in turn. Other Pigeons certainly can take any course in the air, from a straight

line, that would satisfy Euclid as being the shortest distance between two points, to circles and ellipses that remind us of the choreal orbits of the planets round the sun; but the Tumbler, while it is rapidly wheeling past some sharp corner in a tightly-compressed parabola, seems occasionally to tie a knot in the air through mere fun; and in its descents from aloft, to weave some intricate braid, or whip-lash. This latter performance, I suspect, is quite a *leger-de-vol*, or sleight of wing; the bird does now and then tumble heels over head, and perform somersets, which the best clown at Astley's would be unwilling to risk at the same altitude above terra firma—for example, on the tip of a cathedral spire, or in the car of a balloon—but many of these intricate weavings are the result of some trick, best known to the performer, the real solution of which may be suspected to be the non-coincidence of the apparent centre of gravity of the bird with its real one. The Indian jugglers have a similar feat, in throwing a ball in a *spiral* course instead of in an acute parabola, more or less approaching to a vertical straight line; and the laws of motion would assure us that, with a *homogeneous* ball, such a feat is impossible, under the existing circumstances of the universe. But take a large *hollow* sperical shell, heavily loaded internally at *one* point of its circumference with lead, so that the centre of gravity of the mass is by no means in the centre of the hollow sphere, and a clever juggler, by a dexterous twist, will make it play strange freaks. Just so, the wings and tail of the Tumbler are made to follow the impulse which themselves have given, and to revolve round the solid body

of the bird, in seemingly the most unaccountable fashion.

Our birds have all been shut up over-night, so to-day let us have a morning performance, by special desire. Terpsichore, the saltatory Muse, belongs as much to air as to earth. House-tops, or better, tree-tops, shall be the boards of our rustic opera-stage; clouds shall be the wings; the blue sky, the flies; the rising sun shall do his best to fill the place of the gas in the footlights; the orchestra are selected from the *élite* of Cocks and Hens, Ducks and Geese, with China Geese for the wind instruments and ophicleides, Thrushes and Larks for first fiddles, and the Cow and the Pig for a pedal bass,—though the threshing-machine in the distance best represents *that*. The audience is composed of yourself, your wife, three or four boys and girls, the nursemaid with the little one, the woman who is hanging out the the week's washing in the orchard, and the gardener who is come with a wheelbarrow to fetch some columbine guano for his melon-bed. This fresh breeze is better than the smell of orange-peel; that hedge of sweet-briar is more fragrant, though less powerful, than a leaky gas-pipe. The word is given; *open sesame* falls the trap; the performers appear on their little platform, for all the world like the strolling actors in front of a show at a fair, cooing, bowing, advancing, retiring, in this their divertissement. They plunge into their air-bath like truant schoolboys into a brook during the dog-days. The respectable aldermanic Powter swells his portly paunch to the utmost, claps his wings smartly, and sails about in circles: it seems marvellous that *he* should be able to fly at all! But

that darling little cinnamon Tumbler, what a height it is! And now, seven times, I thought I counted, it went over; but whether it was over, or under, or round-about, it would be difficult to say. Does your neck ache? Pray do not complain of it; greater folks than us, when the Hawk and the Heron were trying to over-reach each other, had to strain their eyes and necks a great deal more to enjoy the sport, and had a chance too of scratching out the one, or breaking the other, by riding into a bramble-bush or a pit—a danger we are not likely to incur on this pleasant grass plot. But, you see, the Fantails and the Runts are content to decline these ambitious flights, and to make sure of what grain they can while the chickens are being fed. And now, as the Tumblers are descending to earth again, the business of “The Dovecote” must proceed more steadily.

“*Tumblers*; these are small,” saith Willughby, “and of divers colours. They have strange motions, turning themselves backward over their heads, and shew like footballs in the air.” Among the prettiest of them are what are called Kites, when purely, not unnaturally bred. Kites, are those Tumblers which are self, or whole-coloured, *i. e.*, all black, or all cinnamon-colour, in various shades, or all cream-colour; there are, besides, various “splashes,” as myrtle-splash, cinnamon-splash, &c. But, it will be perceived, that, at any distance from the eye, whole-coloured birds are by far the most telling in a group, and the most ornamental, where the birds are flown, and not mewed up in a loft all their lives long. “The fancy” worship the Almond Tumblers, which are curious enough when minutely inspected; but a quotation from the Treatise will show,

that however beautiful near at hand, they can only look dirt-coloured when seen from any distance. "I have had," boasts the anonymous author of that shamefully, because unthankfully, plagiarised little volume, "I have had some so remarkably beautiful in feather, that their flight, tail, back, and rump, have resembled a bed of the best and finest broken tulips that can be imagined, or a piece of the best and most high-polished tortoise-shell; for the more they are variegated, particularly in the flight and tail (provided the ground be yellow) the more they are esteemed." "I have had some in my collection that have had few feathers in them, but what have contained the three colours that constitute the almond or ermine, viz., black, yellow, and white, variously and richly interspersed." "In short, their beauty far surpasses all description, and nothing but the eye can convey a just idea of them." But all these intricate markings are lost to the eye, unless the Pigeon is kept almost as a cage-bird.

For those who will have the perfect tri-colour Almond Tumbler, it is better, in purchasing young ones, not to form a judgment upon the birds themselves, but, if it can be managed, to get a sight of their parents. The bill shrinks, that is, hardens, for some weeks after the old ones have ceased to feed them; and the gay colouring has only very partially appeared in early youth. At the first moult, many of the diverse markings break out for the first time, and Tumblers in general do not attain their complete beauty till they are at least two or three years old. Our experience is confirmed by the Treatise. "It requires a very nice judgment to form any kind of true knowledge of them; and amongst the whole circle of my acquaintance, there

are but very few that may be said to understand them : every time they moult their feathers, they increase in beauty for some years ; and when in decline of life, they gradually decrease, till they become sometimes a mottled, splashed, or whole colour." We wish it had been recorded at what epoch of a Tumbler's life the sun of its tricolorism begins to set.

But what has caused the great wonderment about Almond Tumblers, is their form ; the whole thing, however, is very simple. The common Tumbler, *au naturel*, has a compact little body, with a round head, a short beak, and neat little feet. But this did not content the fanciers. By pairing together birds, in which these qualities were the most exaggerated, they got bodies still more compact, heads yet rounder, beaks shorter, and feet neater. It was the breeder's art carried to the uttermost, but no sample whatever of the creative power of man (I can hardly bring the pen to write the words!) according to Gallic phrase. As to the beaks, do what the fancier would, they still were not small enough, and then the penknife was brought into use to pare them down *below* the standard. The young of the birds so operated on had not, perhaps, smaller beaks than those originally possessed by their parents, any more than a wooden-legged man is necessarily the father of a wooden-legged family ; but still they sold, and that was enough. And by coupling the most monstrous individuals of a race, a family of monsters are kept in existence for a time. It is possible that a despot might be able to increase the number of club-footed men and women in his dominions, just as William of Prussia tried hard to suit all his extra-tall guardsmen with wives of equally alpine altitude ; but in the long run club feet might follow the

usual average, by the same law of nature—the best of despots—which has prevented the stature of the Prussians from becoming altogether colossal. Tumblers have been bred with their beaks so small that they cannot feed their own young, and with their frames so compact, that they cannot fly to the top of their breeder's bedstead. They are called Tumblers, only because if they *could* fly they *would* tumble. The variation of the species Tumbler has been pushed to its utmost possible limits. Were the limit exceeded, the bird could not be propagated, if it could exist, at all.

Tumbling in the air, on the part of good unsophisticated Tumblers, is to themselves an act of pleasure. They never do it, unless they are in good health and spirits : their best performances are after being let out from a short confinement. The young Tumbler, as soon as it has gained sufficient strength of wing, finds out by some chance that it *can* tumble ; it is delighted at the discovery, and goes on practising, till at last it executes the revolution with satisfaction to itself—a feat the French have not performed of late years. Often and often the young Tumbler may be seen trying to get over, but cannot nicely ; the same firmness of muscle and decision of mind are required to execute that *coup*, which empower the leading men at Astley's to throw their fortieth or fiftieth somerset backwards, and enable the *première danseuse* at the opera to drop from the air, and stand for a second or two in an impossible attitude on tiptoe. Beginners are incapable of such excellence. In short, the Treatise sums up all with an enthusiasm which distances criticism and overwhelms cavil.

“ The Almond Tumbler is a very small Pigeon, with a short body, short legs, a full chest, a thin neck, a very

short and spindle beak, and a round button head, and the iris of the eye a bright pearl colour; and when in perfection is perhaps as great, if not the greatest curiosity in the whole fancy of Pigeons; and would take up a small volume to expatiate on and enter such a description as it would admit of, and really deserves.”

Tumblers with feathered feet and legs are not at all uncommon.

BALD-PATES are pleasing birds, with a very genuine look about them. The character of the head much resembles that of the Turbit and the Jacobine. Their name is derived from their having usually the head, tail, and flight feathers white, and the rest of the body of some uniform colour: those with slate-coloured bodies are as pretty as any. Sometimes the arrangement of this colouring is reversed; the body is white, and the head, tail, and quills coloured. They then answer to the description of a breed given in the Treatise.

The Helmet is about the size of a Nun, or somewhat bigger: the head, tail, and flight feathers of the wings, are always of one colour, as black, red, yellow; and I believe there are some blue, and all the rest of the body white; so that the chief difference between them and a Nun is, that they have no hood on the under part of the head, and are commonly gravel-eyed.

“ They are called Helmets from their heads being covered with a plumage which is distinct in colour from the body, and appears somewhat like an helmet to cover the head.”*

Bald-pates are robust birds, strong flyers, good breeders, and sufficiently prolific to be kept for table

* Treatise, p. 135.

purposes. They are nothing new in the Pigeon world. Willughby describes them. "*Helmets*. In these the head, tail, and quill feathers of the wings are always of one colour, sometimes white, sometimes black, red, yellow, or blue; the rest of the body of another, different from that, whatever it be. These are also called *Helmet* by the *Low Dutch*, as *Aldrovandus* writes from the relation of the fore-mentioned *Dutchman*."* *Aldrovand's* own description is so nearly the same as this, that it is unnecessary to quote it. To this race are to be referred the Magpies, Spots, Swallows, &c. of the dealers. In all these the form, size and powers of the bird remain the same; there are certain variations of colour only, which follow a definite rule in all the sub-races, the leading principle being that the head exhibits a marked contrast to the body. In none of these are the colours shaded or blended into each other, as is the case with the Archangel Pigeon; but, in all, the line of demarcation is as sharp as the junction of the white and the chestnut in a piebald Horse. Buffon mentions them. "Il y en a qu'on appelle aussi (besides the Nuns) Pigeons hirondelles.—C'est à cette variété qu'il faut rapporter le pigeon cuirassé de Jonston *et de Willughby*."†

POWTERS appear to us to be the most isolated of the domestic Pigeons; they bear little resemblance to any of the other kinds, and it is difficult to say to which breed they are most nearly related. If, as some writers have held, the inflation of the crop is the peculiar distinction of the Pigeon, Powters ought to stand at the head of the whole family of *Columbidæ*. Provincially

* Treatise, p. 182.

† *Columba galeata*. Av. p. 63.

they are called Croppers, which is not a vulgarism, but an old form of speech.

“*Croppers*, so called because they can, and usually do, by attracting the Air, blow up their Crops to that strange bigness that they exceed the bulk of the whole body beside ; and which, as they fly, and while they make that murmuring noise, swell their throats to a great bigness, and the bigger, the better and more generous they are esteemed.” *

The hen Cropper also has an inflated crop like the male ; the same in kind, though less in degree. When zealous fanciers want to form an opinion of the merits of a Cropper Pigeon, they inflate the crop by applying the bird's mouth to their own, and blowing into it, exactly as if they were filling a bladder with air, till it is extended to the very utmost. Nor does the patient seem in the least to dislike the operation ; but the contrary ; and when set upon its legs choke-full of wind, it will endeavour to retain the charge as tightly as it can, and appears actually to be pleased with, and proud of, the enormity of the natural balloon which it carries about with it. The only analogous case I am acquainted with is the fish which blows itself out with air, and then floats on the surface of the sea, belly upwards.

I cannot agree with those who think the gait and appearance of Cropper Pigeons at all displeasing or unnatural, although they certainly are a very marked and peculiar style of bird. We can admire the classic figure of Atlas with the globe upon his shoulders ; the Cropper is an Atlas wearing the globe under his shirt front. He

* Willughby.

has indeed something of a military air, and requires but a few finishing touches from a drilling-master to make his demeanour perfect in formality and politeness. We have seen gentlemen belonging to Her Majesty's army, whose back-thrown head, super-erect carriage, taper waist, and well-padded breast, brought them very much to the model of a gigantic Cropper, and whose countenances betrayed no dissatisfaction with their own personal appearance; and a style of beauty which contents a man, may surely be allowed to please a bird. The feathered legs and the sweeping tail may be supposed to complete the likeness, by representing spurs and dangling and trailing what-nots.

The flight also of the Cropper is stately and dignified in its way. The inflated crop is not generally collapsed by the exertion, but is seen to move slowly forward through the air, like a large permanent soap-bubble, with a body and wings attached to it. The bird is fond of clapping his wings loudly at first starting to take his few lazy rounds in the air; for he is too much of a fine gentleman to condescend to violent exertion. Other Pigeons will indulge in the same action in a less degree, but Croppers are the *claqueurs* par excellence; and hence we believe the *Smiters* of Willughby to be only a synonym of the present kind. He says, "I take these to be those, which the fore-mentioned *Hollander* told *Aldrovandus*, that his countrymen called *Draiers*. These do not only shake their wings as they fly: but also flying round about in a ring, especially over their females, clap them so strongly, that they make a greater sound than two battledores or other boards struck one against another. Whence it comes to pass, that their

quill-feathers are almost always broken and shattered; and sometimes so bad, that they cannot fly."

Smiters and Croppers, or something very like them, must have been known and kept so long back even as Pliny's time. "Nosse credas suos colores, varietatemque dispositam: quin etiam ex volatu quæritur plaudere in cœlo, varièque sulcare. Quâ in ostentatione, ut vinctæ, præbentur accipitri, implicatis strepitu pennis, qui non nisi ipsis alarum humeris eliditur." "You would think they were conscious of their own colours, and the variety with which they are disposed: nay, they even attempt to make their flight a means of clapping in the air, and tracing various courses in it. By which ostentation they are betrayed to the power of the Hawk, as if bound, their feathers being entangled in the action of making the noise, which is produced only by the actual shoulders of their wings." *

Powters are of various colours; the most usual are blue, buff (*vulgò* cloth), splashed in various mixtures, and white. Pure white Powters are really handsome, and look very like white Owls in their sober circlings around the Pigeon-house. Apropos of the blue and the cloth-coloured birds, a friend asks, "Have you ever observed that if you pair a chestnut with a blue Pigeon, the cock being, say the chestnut, the chances are that the *young* cock is *blue*, and the hen chestnut, and *their* offspring will come *vice versâ* round again?"—*H. H.* This is a curious alternation.

Powters have deservedly a bad character as nurses, and it is usual to put the eggs of valuable birds under other Pigeons to hatch and rear; but otherwise they are

* Lib. x. 52.

not deficient in natural powers, either of hardiness, flight, or memory. I am well acquainted with the party to whom the following case happened:—

“ I once had a pair of Pigeons of the Cropper kind given to me by a friend. I confined them about a month, with the view of breaking off the thoughts of their former home; but as soon as they had their liberty, they flew towards their old habitation. The hen arrived immediately; but, strange to say, her mate did not *till two years afterwards*. No doubt he was trapped, and remained in confinement during the whole of that time. The distance to their old home was only four miles and a half, but what seems curious is, that a Pigeon should recollect his home after two years' absence. My friend told me, that as soon as the Cropper cock got back again, he began to play the same tricks as he used to do before he was sent away to me.”—*J. W.*

An objection to Powters is, that the largest-cropped birds seldom have their crops perfectly covered with feathers, but show a great deal of naked skin (from their rubbing off) which leaves the beholder to *imagine* the beautiful plumage which *ought* to be beheld. They are also apt to be gorged by over-feeding themselves; in which case we have proved the benefit of the directions in the Treatise, adding to them, however, a calomel and colocynth pill. “ When they have been too long from grain, they will eat so much that they cannot digest it; but it will lie and corrupt in the crop, and kill the Pigeon: if this, therefore, at any time happens, take the following method:—

“ Put them in a strait stocking, with their feet downward, stroking up the crop, that the bag which contains the meat may not hang down; then hang the stocking

upon a nail, keeping them in this manner till they have digested their food, only not forgetting to give them now and then a little water, and it will often cure them; but when you take them out of the stocking, put them in an open basket or coop, giving them but a little meat at a time, or else they will be apt to gorge again.”*

No space remains to give the technical points of the Powters of the fancy, which would best be done by liberal quotation from the Treatise. The author quite sympathises with the “insanity” of the ancient Romans. He elaborately describes five properties of the standard Powter, and six rules for the manner in which a Powter should be pied, as “published and in use among the columbarians;” and sums up all philosophically thus:—

“A Powter that would answer to all these properties, might very justly be deemed perfect; but as absolute perfection is incompatible with anything in this world, that Pigeon which makes the nearest advances towards them is most undoubtedly the best.”†

Some of the crosses between Powters and other Pigeons are held in esteem; that most prized is the cross with the Carrier, as being a bird of powerful flight. “Light horsemen. This is a bastard kind, of one parent a *Cropper*, the other a *Carrier*, and so they partake of both, as appears by the wattles of their bill, and their swollen throats. They are the best breeders of all, and will not lightly forsake any house to which they have been accustomed.”‡ The same mixture of breeds often goes by the name of Dragoon. The Treatise applies the

* Treatise, p. 38.

† Ib. p. 160.

‡ Willughby.

term to the cross between the Horseman and the Tumbler.

There is another Horseman, of which the Treatise observes, "It is to this day a matter of dispute, whether this be an original Pigeon, or whether it be not a bastard strain, bred between a Carrier and a Tumbler, or a Carrier and a Powter; and so bred over again from a Carrier; and the oftener it is thus bred, the stouter the Horseman becomes.

"The only thing that seems inclinable to favour the opinion that they are original, is a strain of this kind brought over from Scandaroon, which will fly very great lengths, and very swift; but still the answer readily occurs, that they may be bred originally the same way at Scandaroon, and so transmitted to us; but that we cannot determine."

CARRIERS are a race of Pigeons which from a remote antiquity have been employed in the office of fetching, rather than of carrying, letters. They thus bring intelligence home from whatever place, within their power of return, they may have been purposely sent to. They do not carry letters out wherever they are bid, as some have supposed. They are the reverse of the General Post: *that* forwards a note to any part of the known world; *they* will only deliver a note from any part of the world known to them. To avail one's self of the services of Carrier Pigeons, birds must first have been sent *to* the place from which intelligence is desired: so that in cases where difficulty of access is likely to occur, considerable foresight has to be exercised. It would be no use wishing for the arrival of a courier Pigeon from a fortified town, or the Eddystone

Lighthouse, if the one were in a state of siege, and the other fairly in for six weeks bad weather. The birds have to be kept and confined in the places whence they may be required to start on any emergency.

If the points from which intelligence is to be conveyed are situated at great angular distances from each other and from the central home, different sets of birds have to be maintained. The Pigeon which will traverse with practised ease the space from London to Birmingham, may be unable to find its way from Bangor or Glasgow to the same town.

Carrier Pigeons have been largely employed in conveying messages across the English Channel; the Antwerp birds are so celebrated as to be cultivated as a separate sub-race; and there are few seaport towns on our eastern and southern coast, from Great Yarmouth to Penzance, in which there are not one or two Pigeon-trainers resident, to whose hands a variety of birds are constantly entrusted. It is over seas and desert tracts that Pigeons are the most useful as well as the surest messengers; in civilized and thickly-peopled countries they are less needed, and are moreover apt to get entrapped or shot, and their secret stolen from them. Accordingly we find that they have been much employed in the East: our Carrier Pigeons are nothing but an imitation of Oriental example. From the many instances that might be given, we select one less hackneyed than usual.

“The Castle of Kooshler, or Castle of the Birds (at Bagdad), borrows its name from the Doves, by which an old monk formerly residing at this convent conveyed his letters. The convent crumbled into ruins on the birth-night of the Prophet; the remains of it go now

by the name of the Doves. The letter-doves (Koordjer) of Bagdad remained, and became an institution celebrated in Greece, Arabia, and Persia. The inhabitants of Bagdad feed them together, and separate then the coveys, sending them to Syria, Egypt, and even to Yemen and India, from whence they return with letters written on fine silk paper. There are examples that such a Dove has been sold for five hundred piastres. The merchants of Cairo feed a great number of such Doves to convey letters to (from ?) their correspondents at Damietta, Rosetta, Alexandria, Algiers, Tunis, and Morocco on one side, and to (from ?) Jedda, Yenboo, and Mecca on the other. These Dove messengers are continually under way from and to Bagdad and Cairo, and I saw many of them during my stay in Egypt. It is from them that this convent bears its name."*

The great puzzle to most persons is, *how* the Pigeon finds its way through such long distances as we know to be occasionally traversed by it. A correspondent, whose name stands high in the scientific world, guesses that animal magnetism may have something to do with it. "I should like," he writes, "to inclose a Pigeon in some active galvanic machine, of such a nature, that if a magnet was also inclosed, its poles would be reversed, and see whether the Pigeon thus transported would find its way home. I can imagine a bird to have a sense of its own diamagnetic condition, and so keep a sort of rough dead reckoning when transported."

I once asked a Pigeon-fancier whether he believed that there ever existed such a person as an honest Pigeon-dealer; after some consideration, he replied,

* Southey's Common-Place Book, 2nd Series, p. 447.

“ No ! ” I believe that such people, though rare, still *are* to be found. But this galvanic experiment, if successful, would completely and practically baffle the old tricks of the trade. We should only have to purchase a lot of Pigeons, reverse their poles by galvanism, and then turn them loose at once, fearless of the traps, *not of the seller*, but of the breeders who sold them to the seller, who, when lost Pigeons are inquired after, is so seldom able to remember the name and address of the parties from whom he had them. M. Temminck, unfortunately—writing on Domestic Pigeons not from his own experience, but relying on Parmentier and others—does not say a word about the Carrier; an omission in his valuable work which will render any information I can communicate all the more welcome to my readers. It is doubtful how far the faculty or instinct of these birds would enable them to discover their home through long intervals of unknown country, where the space between, say, *two* of their horizons from their highest elevation, is all fresh and devoid of recognisable landmarks. It is usual not to trust to such a power of discovery in birds that are to be employed on any important service, but to train them, by taking them further and further from home. In conducting this mode of education, many a time, when a boy, have I gone out for a country walk, with two or three Pigeons in my pocket, or wrapped up in a silk handkerchief tucked under my arm, to be tossed off at the furthest point of the excursion, and to be found at home on my arrival there.

Mr. George Combe, and the phrenological writers, account for the feats performed by the Carrier and other Pigeons, by supposing them to result from the

action of a special organ of the brain, which they have named Locality, and which, when highly developed in man, appears as "two large prominences, of singular form, a little above the eyes, commencing near each side of the nose, and going obliquely upwards and outwards, almost as high as the middle of the forehead." Sir George Mackenzie considers the primitive faculty to be that of perceiving *relative position*. The organ is affirmed to be large in the busts and portraits of all eminent navigators and travellers, such as Columbus, Cook, and Mungo Park. Dr. Gall believes the organ to be possessed by the lower animals, and relates several amusing stories of dogs returning to their homes from a great distance, without the possibility of their having been guided by smell or sight; indeed, his whole work is full of delightful illustrations of natural history. Similar facts with regard to other animals and birds must occur to the memory of every reader; and we must allow that no credible hypothesis for the means by which this surprising faculty is exercised has been offered, except by the phrenologists. Dr. Gall considers it to belong to the organ of Locality. The Falcon of Iceland returns to its native place from a distance of thousands of miles; and Carrier Pigeons have long been celebrated for a similar tendency, though of inferior power. The migrations of Swallows, Nightingales, Terns, &c., are attributed by Dr. Gall to periodical and involuntary excitement of the organ of Locality; for this excitement, it cannot be denied, occurs even in birds kept in cages, and abundantly supplied with food. We must admit that at least some affections of the mind are subject to involuntary and periodical excitement of various intensity. A gentle-

man with whom I was well acquainted, who had the organ of Locality largely developed, made his way with ease from a point in Argyleshire to one in Inverness-shire with no other guides than a pocket compass and an indifferent map—a feat which will be appreciated by those who have ever had a peep at the mountains of Glencoe, Glencroe, and the Devil's Staircase, which he had to cross.

We give a quotation respecting Carrier Pigeons from the “Phrenological Journal,”* because it is much to the purpose, as well as because that work is not likely to fall in the way of the generality of readers. “Dr. Gall considers this surprising talent (of birds and animals returning to their homes) to have some connexion with the organ of Locality. I do not pretend to offer any hypothesis in relation to this matter, but shall state merely a few doubts and suggestions; and having some time ago made an experiment, with the view of ascertaining whether Carrier Pigeons can instinctively return to their homes from a distance, or whether, to make them useful as messengers, it be necessary to teach them the road, I think it may be interesting to you to learn the result.

“A pair of very fine Carriers having been sent me by a friend, I kept them for some time in the house, and, I think, for about three weeks in the Pigeon-house, in order to give them full time to forget their former place of residence. When permitted to fly abroad, they returned to their new habitation, where they soon had young; and when these were able to provide for themselves, and the female was a second time busied in

* Vol. viii. p. 71.

the work of incubation, it was considered the best time to make the experiment, as the male would then have the strongest inducement to return to his mate. Accordingly he was sent, along with his two young ones, to a friend's near Kelso. That place was well adapted by its situation for the object in view; for, as the road lies over the high ridge of the Lammermoor Hills, it was necessary for the bird to fly to a great distance in the proper direction, before he could see any part of the country of which he was likely to have acquired a knowledge, while taking pleasure excursions through the air in clear weather from his own home—a pastime much indulged in, when he was first allowed to fly from the Pigeon-house, and which in all probability was prompted by a strong desire to know the appearance of the land. To avoid all danger from sportsmen, the bird was let off from my friend's house on the Sunday morning; and after rising to a considerable height, he took his course in a fair direction towards home. He was not seen for two days, but, being unable to find his way home, he returned to the place where he had last seen his young, and which he had only time to observe as he towered in the air before he took his direct line of flight. On the top of this house he lived for some weeks, and until a Pigeon-house was made in the roof, and his young allowed to go out after being confined a proper time to the house. This, I think, when joined with other observations on the subject, clearly proves that the Carrier is guided in his journey solely by memory, and a knowledge of the country he has to traverse. These birds, when employed to carry intelligence from one part to another, are trained by being taken, first, say five miles from

home, then ten, and so on till the whole journey is completed by short stages ; and even should the bird know the road, it cannot travel in foggy weather.

“ Among these animals, as among men, some are more easily taught than others, and the fanciers distinguish the best birds by the height and fulness of the membrane above the nostrils ; and the method they practise to set off an indifferent bird is to raise this membrane, and puff up the part by stuffing pieces of cork under it.”

I have tried similar experiments with similar results. Inexperienced birds return home from short distances very easily, if the ground over which they have to fly lies all in one plain or in one valley ; but if any high ground intervenes between the place where they are thrown off and their home, they are very apt to lose their way. When thus bewildered, they are liable to get shot during their endeavours to find the right course, and in many parts of England Sunday does not afford them the exemption from unauthorized gunners which it ought to do. In short, even if the phrenological doctrine be true, that the Pigeon finds its way by means of the organ of locality in its brain, still that organ requires to be exercised, in order to be of service on any unusual emergency. The Treatise takes the same view of the performances of Carriers.

“ In Turkey they call them Bagatins, or Couriers ; and the Turks and Persians make a common practice of breeding this sort of Pigeons in their seraglios, where there is one whose business it is to feed and train these birds for the use afterwards designed, which is done in this manner : when a young one flies very hard at home and is come to its full strength, they carry it in

a basket, or otherwise, about half a mile from home, and there they turn it out; after this they carry it a mile, then two, four, eight, ten, twenty, &c., till at length they will return from the furthest parts of the kingdom. This practice is of admirable use; for every bashaw has generally a basket full of these Pigeons sent him from the grand seraglio; and in case of any insurrection, or other emergent occasion, he braces a letter under the wings (?) of a Pigeon, whereby its flight is not in the least incommoded, and immediately turns it loose; but for fear of their being shot, or struck by a hawk, they generally dispatch five or six; so that by this means dispatches are sent in a more safe and speedy method than could possibly be otherwise contrived. *N.B.—If a Pigeon be not practised when young, the best of them will fly but very indifferently, and may very possibly be lost.*" *

The N.B. explains everything; and an excellent commentary on the principles of Pigeon-flying has been called forth by the cruel hoax that has gone the round of the papers respecting the Pigeons supposed to have arrived in Scotland from Sir John Ross in the Arctic Regions. It appears that Miss Dunlop, of Annan Hill, presented Sir John, on his leaving Ayr on his chivalrous expedition, with two pairs of Carrier Pigeons, an old pair and a young one. It was arranged that he should dispatch the young birds when he had fixed himself in winter quarters, and the old ones when he fell in with his missing friend Sir John Franklin, in search of whom he was about to expose himself to Arctic dangers. The gift was kindly meant, but very foolish: the

lady had much better have presented the voyager and his crew with an enormous and well-seasoned Pigeon-pie to eat, and a barrel of good Scotch ale to drink, on first coming in sight of the ice; for hope deferred maketh the heart sick, both with friends at home, and with sailors abroad. On Sunday, the 13th of November, 1850, two strange Pigeons were observed flying about the dovecote at Annan Hill, which being under repair at the time was unfortunately shut. Suspicion was excited, and on next Thursday they were traced to the seat of a neighbouring gentleman, and one was secured.

The fact of their being captured *elsewhere*, proves that they were only a pair of stray Pigeons, in search of a home they knew not where, and not Miss Dunlop's Pigeons come back again.

"Its feathers were ruffled and somewhat torn, showing, very probably, that the dispatch attached to it had worn off in the long and weary flight of somewhere about 2000 miles. Unfortunately, therefore, there is no written intelligence from the explorers. The other bird has not been caught. We remember no similar feat being performed by a Pigeon," &c., &c.

In the "Manchester Guardian," Mr. J. Galloway throws discredit on the whole affair, in the following very sensible remarks:—"Those who know anything of the habits of Pigeons, or the careful training requisite to enable them to accomplish long flights, will not easily be led astray by the clumsy invention of some ignorant wag, desirous of practising on the credulity of the public. Two Pigeons were said to have been seen at a considerable distance from their cot, because it was shut up. This would be contrary to their habits; *they*

would remain at their old habitation until nearly famished with hunger. Again: one of them had the feathers ruffled or disordered under the wing, as if a letter had been fastened there. Now an express flyer of Pigeons would just as soon think of tying a letter to a bird's tail, as under its wing. The practice is to roll some fine tissue paper neatly round the leg, secured with a thread of silk; and thus the bird can travel, without the paper causing resistance or impediment to its flight. Then, more marvellous still, the creature must have flown 2000 miles!—a considerable distance of which must have been over snowy or frozen regions. In modern times, no such distance as 2000 miles has been accomplished by any trained Carrier Pigeon. The merchants and manufacturers of Belgium have done more to test the capabilities of Pigeons than any other people. Their annual Pigeon-races produce an excitement almost equal to our horse-races. In 1844 one of the greatest races took place, from St. Sebastian, in Spain, to Vervier. The distance would be about 600 miles. Two hundred trained Pigeons, of the best breed in the world, were sent to St. Sebastian, and only 70 returned. In another race to Bordeaux, 86 pigeons were sent, and 20 returned. A strange and mistaken notion prevails that it is only necessary to send a Carrier Pigeon away from home and that its instinct will invariably lead it back. Let any one try the experiment, and send the best bred Carriers at once to Birmingham, and I venture to assert that not one will return to Manchester without previous training—viz. taking them short distances at a time and then increasing by degrees. It has been asserted that Pigeons are guided on their return

home from long distances by instinct. Instinct is said to be unerring ; not so the Pigeon's flight. If instinct be the guide, why not fly through foggy weather with equal speed and facility as in clear sunshine ? This, it is notorious, they cannot accomplish. When the ground is covered with snow, Pigeons seem to miss their points of guidance, and are lost. This would seem to favour the opinion that they travel by sight, and are less indebted to instinct than is generally imagined. Carrier Pigeons do not fly at night ; they settle down if they cannot reach their home by the dusk of evening, and renew their flight at daylight next morning. The velocity of a Pigeon's flight seems to be greatly overrated ; and no doubt your readers will be surprised to learn that a locomotive railway engine can beat a Carrier Pigeon in a distance of 200 miles."

The flight of the Carrier-Pigeon is clearly not conducted by the same principle which guides the Stork, the Quail, and the Woodcock, over wide seas, by night. That may be an excitement of the organ of locality ; this is not. I have had birds, that had been taken from home six or seven miles, come back at last at the end of two or three days ; *i. e.*, they could not *find* their way immediately. In the same time in which they accomplished these six or seven miles, migratory birds would have passed over four or five hundred at least. The Pigeons alluded to by Mr. Galloway are the famous Antwerp Carriers. But Antwerp Carriers have been cruelly vituperated by De Beranger, because they are now mostly employed in matters of business rather than of gallantry. His complaint is not to be wondered at ; for when sensuality once lays hold of a man, it often becomes his sole idea. No apology is offered

for the translation of his verses ; it seems to the translator to be quite as good as the original.

LES PIGEONS DE LA BOURSE.

PIGEONS, vous que la Muse antique
Attelait au char des Amours,
Où volez-vous ? Las, en Belgique
Des rentes vous portez le cours !
Ainsi, de tout faisant ressource,
Nobles tarés, sots parvenus,
Transforment en courtiers de bourse
Les doux messagers de Vénus.

De tendresse et de poésie,
Quoi ! l'homme en vain fut allaité.
L'or allume une frénésie
Qui flétrit jusqu'à la beauté !
Pour nous punir, oiseaux fidèles,
Fuyez nos cupides vautours ;
Aux cieux remportez sur vos ailes
La poésie et les amours.

THE STOCK (EXCHANGE) DOVES.

YE Pigeons, whom the ancient Muse
Once harnessed to the car of Love,
Where haste ye ? Shame ! Oh bear ye news
To Antwerp how the markets move ?
Thus ill-famed nobles, idiots vain,
In hope to shun their threaten'd fate,
In stock-jobbing employ the train
That erst on Venus used to wait.

On sentiment and poetry
Was infant Man thus vainly fed ?
Shall gold maintain a tyranny
That strikes the pow'r of beauty dead ?
In just revenge, ye faithful race,
Far from these greedy vultures fly,
And heav'nwards bear through distant space
All sweet amours and poetry.

De Beranger was the poet, or perhaps the prophet of Socialism, and it would have been well for himself, as for others, if all his *Chansons* had been as harmless as this one. It will be no great loss to the rising generation, if the Pigeons do carry utterly away a great part of M. de B.'s *poesie* and *amours*; but they will certainly remove them not to the heavens, but to some lower destination. As Carlyle said of Diderot, whoever has read De Beranger ought to wash thrice in running water—under a good hydropathic *douche* for instance—after the perusal, and be clean, if he can, by those means.

The English Carrier is mostly black in colour, and has the fleshy excrescences around the eyes, and at the base of the bill, much more developed than the Antwerp birds. It is above the ordinary size of Pigeons, and its form is a happy combination of strength with gracefulness. Its beak is long and straight, in contrast with that of Turbits and Tumblers; its head is long and oval; its neck thin and taper. The Antwerp Carrier is still more slim in its proportions, with great length of wing. Its colour also is more various. Well-bred birds of both varieties are often kept during their whole lives in dealers' cages, and then little observation of their movements can be made; but when indulged with liberty they are impetuous and active, even more so than the Rock Dove, which would be the next best bird to employ as a letter-carrier. Such incarcerated birds can sometimes be bought with a warranty of their having never been flown, but even then great caution must be exercised in letting them out for the first time. They are apt, in their joy at emancipation, to dart off in a straight line, as if by some instinctive impulse, even

though they have no known home to go to ; and so lose themselves beyond the power of retracing their way. Their acquaintanceship with the other Pigeons of the same loft offers the best chance of regaining them in such cases.

The result of all the learning that one can collect respecting the Carrier Pigeons, clearly indicates their oriental origin. "The Dutch," says the Treatise, "call this Pigeon Bagadat, probably from a corruption of the name of the city Bagdat, which was formerly old Babylon, which Nimrod built ; because they judge this Pigeon in its way from Bazora to be brought through that city." The name of Nimrod recalls the legend that Semiramis herself is said to have been changed into a Dove ; which sounds as incongruous a metamorphosis as if we were told that Catherine of Russia had been changed into a Dove ; for neither of those ladies could be said to be Doves before the change. Mr. Layard tells us, that, according to a tradition resembling the Orphic legends, Aphrodite herself was born of an egg, which fell out of heaven into the Euphrates, and was incubated by two Pigeons. Appended to this are the Doves of Venus and the oracular birds of Dodona. And we are further informed that in the earliest sculptures of Nimrod, the king is only seen in adoration before one symbol of the deity—the figure, with the wings and tail of a bird inclosed in a circle, resembling the Ormuzd of the Persian monuments. The resemblance of a modification of this to the winged globe of Egypt is pointed out by Mr. Layard ; and our own dove-like representation of the Holy Spirit may be an emblem borrowed from these abstrusely-ancient symbols. And the superstitious regard which the modern Rus-

sians still entertain for the family of Pigeons, may be attributed to the influence of traditions whose source is far earlier than the Christian era.

THE LACE and the FRIZZLED PIGEONS are both great rarities : the latter I have never seen ; the former only in the collection of her Majesty the Queen, at Windsor. The Treatise speaks of the Lace Pigeon as “ originally bred in Holland, where I am informed there are great numbers of them ; though not one that I know of is to be seen in England at present. It is in size rather less than a common Runt, and like it in shape and make ; though *I once saw a Shaker of this kind* ; their colour is white, and they are valued on account of their scarcity and the peculiarity of their feathers ; the fibres, or web, of which appear disunited from each other throughout their entire plumage, and not the least connected, as is common with all other Pigeons, where they form a smooth close feather.” The birds most nearly approaching to these in plumage are the Silky Fowls. The Frizzled Pigeon is called by the Treatise, *The Frilled-back*. “ What is chiefly remarkable in them,” it says, “ is the turn of their feathers, which appear as if every one distinctly had been raised at the extremity with a small round pointed instrument, in such a manner as to form a small cavity in each of them. Aldrovandi figures a “ *Columba crispis pennis*,” without giving a description of it ; but proving, however, that among Pigeons, as among Fowls, there have existed, for some hundred years at least, Frizzled—or, as they are called by some, Friesland—races of birds.

Beyond these there appear to me to be no other varieties of solely domestic Pigeons which demand notice ; but a few supplemental particulars may be given before

closing the chapter. "The eggs of the Columbidae are all, as has been stated, much alike, and always pure white. Those of the Ring Dove are, however, more blunt and rounding in shape than the eggs of the domestic birds, and do not taper so much. The young also of the different species vary very little *at first*. The old birds frequently, from some cause, seem to neglect one of their offspring, not giving it an equal quantity of food with the other one; nor does this neglected chick reach the size of its companion (which far outstrips it in growth) until it can feed itself. [Sometimes one of the two squabs is actually starved to death by the undue favouritism of the parents towards the other.] I have never known the eggs produce two hens, though I have frequently had instances of the young birds proving both to be cocks; and this may be discovered by the incessant bickerings they keep up, at the time when they ought to be forming a quiet matrimonial attachment. Some of the larger Pigeons, as the Runts and Powters, often have fierce engagements, dealing each other severe *Swan-like* blows with the wing, for an hour together. Hamlet used a metaphor which was only partially correct when he said,

‘But I am Pigeon-livered, and lack gall
To make oppression bitter.’

Shakspeare elsewhere acknowledges that even Pigeons may occasionally be choleric.

‘The smallest worm will turn being trodden on;
And Doves will peck in safeguard of their brood.’

Henry IV., *Act 2, Scene 2nd (3rd Part)*.

“He also, in ‘As you like it’ (Act 4, Scene 1), remembers the harshness with which the male bird drives the

truant female to her nest—‘I will be more jealous of thee than a Barbary Cock-pigeon over his hen.’ Which is saying a good deal, for Pigeons can buffet smartly. Indeed, I well remember, when a child, being terribly scared one day by a Powting Pigeon. I had gone up into a hay-loft when the old cock bird was sitting on his eggs at the corner of a truss of hay, just the height of my head. The place was nearly dark, and on passing close by him, he saluted me with a couple of sound boxes on the ear, accompanied by what I then thought a deep groan !

“In their wing to wing engagements, the younger cocks generally succeed in mastering the elder ones. I have noticed, that when a *hen* Pigeon loses her mate by death or other accident, she generally goes off, and is lost to her owner, unless a husband be quickly supplied ; but if the cock is the survivor, he will soon provide himself with a mate from some quarter, though not always perhaps to the taste of his master. The conjugal love and fidelity of these birds has always been made a great deal of ; but there is no bird that will form a new attachment in so short a space of time. Wishing one day to pair a cock Pigeon more suitably, I took away the hen in the afternoon, and shut up the cock with his new companion. By the middle of next day they had paired, and were become excessively agreeable to each other. They were then let out, and by the afternoon of the day after had commenced building. [In such cases, however, they are very apt to go back to their first love, unless he or she is utterly made away with.] It seems to be a rule among Pigeons (if food is plentiful and the weather not too severe), that as soon as ever the web of the young quill feathers appears on the squabs, the parents again commence building.

They still continue their care of the former ones after the second young are hatched, but seem often much relieved by their sudden disappearance into the depths of a pie.”—*H. H.*

But true love does not always run on thus smoothly : with Pigeons, if the cock is not a bit of a tyrant, the hen is apt to be an indomitable vixen. “ Notwithstanding they are very constant,” says the Treatise, “ when paired to each other, seldom parting, except when either of them grows sick or very old, yet ’t is difficult to make them pair to one’s mind.

“ Therefore, to oblige them to this, there should be two coops erected, called by the fanciers matching places, close together, with a lath partition between them, that they may see each other ; and should be so contrived, that they may both eat and drink out of the same vessels, feeding them often with hemp-seed, which makes them salacious ; and when you observe the hen to sweep her tail to the cock, as he plays in the other pen, which is termed shewing, you may put her in to him, and they will soon be matched.

“ But if, for want of this convenience, you are obliged, at first, to put them both into one coop, always put the cock in first for a few days, *that he may be the master of the place, especially if the hen be a virago* ; otherwise they will fight so much as perhaps may settle in them an absolute aversion for ever after. But the cock, being master, will beat the hen, if refractory, into compliance.”*

Females in general will put up with any treatment, rather than with indifference and neglect. A woman

* Treatise, p. 13.

was one day discoursing with me respecting the virtues of her husband : “ 'E 's a werry good 'usband, Sir, a werry good 'usband indeed. To be sure, he *do* beat me now and then ; but you know, Sir, men must have a *little* reckeration ! ”

Pigeons are thirsty creatures ; they like the neighbourhood of water, and seem heartily to enjoy the act of drinking. This is performed by plunging the head in, nearly up to the eyes, and taking a full draught at once, instead of sipping like cocks and hens. In incubation, they will not sit, like hens, much beyond their proper time ; it is *after* the young have appeared that the assiduity of the parents is most manifested. Shakspeare beautifully describes the character that was

“as patient as a female Dove

When that her golden couplets *are disclosed.*”

“ The attachment of Pigeons to the place where they have been bred is well known, and the pertinacity with which they will return to their former abode, even after the greatest care and pains have been bestowed on them, is often most extraordinary. In one case I knew a hen to fly back eight times to her old habitation, although at the distance of some miles ; and this bird could be easily identified, some one having drawn a slight line of *scarlet paint* round each eye, contrasting with her white head and neck. Pigeon dealers, some of whom are the greatest ——— imaginable, will take advantage of this attachment to home ; and in one case I ascertained a bird to have been sold three times over, to as many different persons !

“ Every year, exactly at the same time, viz. the beginning of July, the whole of our Pigeon stock, and also that of our neighbour, work most indefatigably at two

or three spots in our old pastures and park. What they get there I have never been able to ascertain, as there seem to be no available seeds of any kind to be had in these places. It is only for about a fortnight that the Pigeons frequent them.

“Although our domestic Pigeons usually make use of only a moderate quantity of small sticks or straws in constructing their nests, yet there are occasionally a few curious exceptions. Last year I had a pair that took a fancy to build between some hurdles placed upright as a fence. Not being able to make a firm foundation, they first collected an immense mass of straw and other material, to fill up the space between them: after which they made the nest in the usual style.”—*H. H.*

The usual food of domestic Pigeons is gray peas, but they will thrive also on wheat, barley, and the smaller pulse and grain. Tares are mostly too dear with us to feed them with. They are fond of the seeds of many wild plants, and no doubt render good service in preventing the increase of weeds in those fields which they frequent. A great treat to them is to throw out the rubbish, after a threshing of wheat or barley is dressed, on some lawn, or in some orchard, where it can do no harm. They will search days together amongst this for dross corn, poppy-seeds, &c., and get many a meal from the minute tit-bits that would be utterly lost to cocks and hens. Nor, as they do not scratch, are they injurious in gardens, unless their little foot-prints be thought an eye-sore. They will not disturb anything which the gardener has properly deposited in the ground, and what they do pick up is what otherwise would be wasted. Hemp-seed, so often recommended, is apt to bring on skin disease.

The reader may here be disposed to ask, which is the most advisable sort of Pigeon to keep ; to which we reply that tastes differ ; please *yourself* without consulting others. If handsome, court-yard, table-birds are desired, we should much be disposed to recommend the larger breeds. But Runts, for some reason which is not very clear, are held in but little esteem in England. Fanciers disregard them because they are neither elegant in shape, beautiful in feather, nor pleasing in flight. Their size ought to recommend them for economical purposes, unless our climate, so unlike that of their native birth-place, the shores of the Mediterranean, is unfavourable to their profitable increase. But their great size makes them remarkable ornaments to the aviary, and their history, as far as we can guess at it, ought to attract the attention of the naturalist.

“ The Leghorn Runt,” says the *Treatise on Domestic Pigeons*, “ is a stately large Pigeon, some of them seven inches, or better ; in legs, close feathered ; and firm in flesh, extremely broad-chested, and very short in the back ; he carries his tail, when he walks, somewhat turned up, like a Duck’s ; but when he plays, he tucks it down ; his neck is longer than any other Pigeon’s, which he carries bending, like a Goose or a Swan. [Some of these particulars show an approach to the Fantails.] He is Goose-headed, and his eye lies hollow in his head, with a thin skin round it much like the Dutch Tumblers, but broader ; his beak is very short for so large a bird, with a small wattle (cere?) on it, and the upper chap a little bending over the under. Mr. Moore says they are a very tender bird, but I must beg leave to dissent from that opinion of them, having kept them several winters in a little shed or room, one side of which was entirely

open, and exposed to the easterly winds, with no other fence but a net, which kept them confined. Care should be taken of their young ones, for they rear but few in the season, if left to bring them up themselves; therefore it would be most proper to shift their eggs under a Dragoon, or some other good nurse, remembering to give them a young one to feed off their soft meat; if this method be pursued, they will breed very well.

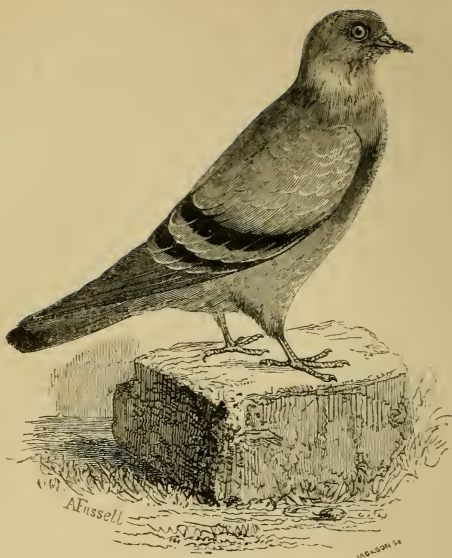
“ I have had a hen of the Leghorn breed that weighed two pounds two ounces avoirdupois weight; and have killed of their young ones which, when on the spit, were as large as middling spring fowls. It should be observed that these, and all other Runts, increase in bulk, till they are three or four years old. As to their feathers, they are various, but the best that I have seen were either white, black, or red-mottled. Leghorn Runts are more valued than any other sort of Runts, though there is a vast difference in *them*; some of them being very bad ones, though brought from Leghorn.”

There does not appear to be any great distinction between the Leghorn, Spanish, and Roman Runts. Some of the latter are so big and heavy that they can hardly fly, which circumstance, if not the result of domestication, would account for their disappearance in a wild state.

The Runt was well known to Aldrovandi. He gives a woodcut of it, rude, but characteristic, and with the tail famously tucked up. The Trumpeter belongs to that family of extra-sized Pigeons, the Runts, which are so little valued in this country, although specimens, when to be met with, are rarely cheap. It is a bird which many would call ugly, but is of striking appearance, from being so much larger than the Pigeons

usually seen, as well as from its thickly-feathered feet and legs, and the military cut of its head. I quite believe that it received its title of Trumpeter rather on account of the helmet-like crest at the back of the head, and the tuft of feathers at the base of the beak, which have very much the air of well-curled mustachios, than because its coo is specially sonorous or brazen. May not the word Trumpeter be a corruption of the Italian Tronfo, or Runt? Temminck includes the Trumpeter in his brief account of the Pigeon Romain, or Runt, the *Columba hispanica* of Latham. He says, "Some of these are found rough-footed, with very long feathers on their toes, which seem to incommode the bird in its movements; others are tufted, the only difference being in the feathers of the occiput, which are turned and set up."

These have great claims on our favour from their classical associations: Turbits, Nuns, and Tumblers are both pretty and profitable; but the Pigeon of greatest interest, a pure flock of which is almost an aristocratical appendage to a mansion, is the bird which stands at the head of the following chapter.



Blue Rock Pigeon (Columba livia).

CHAPTER V.

PIGEONS WHICH ARE BOTH DOMESTIC AND WILD.

The Blue Rock Dove.—Varro's account. — Distinguished from Dovehouse Pigeons.—Disposition.—Experiment.—Gregariousness.—Crossing with Carriers.—Less kept than formerly.—Maritime haunts.—Colonel Napier.—Rock Pigeons in Sutherland.—Differ in habits from Fancy Pigeons.—Characteristic plumage.—Productiveness.—Quality of flesh.—Dovehouse Pigeon.—Indian Rock Pigeon.—Mr. Blyth's account.—*Columba affinis*.—Question of distinctness.—Pigeon matches.—Apology.—Numbers shot.—Pigeon-shooting in France.—Temperature of the bird.—Value as nurses.—The Collared Turtle.—Native haunts.—Disposition.—How far domestic.—Escapades.—Food.—Pairing.—Nesting and incubation.—Education of the young.—Severe discipline.—Watchfulness.—Voices.—Interesting pets.—Plumage and varieties.—Hybrids.—Heralds of Peace.—The Irish Dove.

WHEN there is no good standard translation of an author whose testimony is of importance on any dis-

puted point, it is better to quote the passage in its original words than to incur any suspicion of having given a weak or warped rendering, after the example of Chaunteclere's explanation to the faire Damoiselle Pertelote, as related by Chaucer:—

“ For al so siker as *In principio*

Mulier est hominis confusio.

(Madame, the sentence of this Latine is,

Woman is mannes joye and mannes blis.)”

We therefore quote here a few sentences from Varro, because two thousand years ago he recorded some peculiarities in the races of Domestic Pigeons (and other passages of similar import are to be found in other ancient authors) which appear to us to be opposed to, if not irreconcilable with, the theories of some modern naturalists.

“ Si unquam περιστεροτροφεῖον constituisses, has tuas esse putares, quamvis feræ essent. Duo enim genera earum in περιστεροτροφείῳ esse solent: Unum agreste, ut alii dicunt, saxatile, quod habetur in turribus, ac columinibus villæ, a quo appellatæ *columbæ*, quæ propter timorem naturalem summa loca in tectis captant; quo fit ut agrestes maxime sequantur turres, in quas ex agro evolant suapte sponte, ac remeant. Alterum genus illud columbarum est clementius, quod cibo domestico contentum intra limina januæ solet pasci; hoc genus maxime est colore albo; illud alterum agreste sine albo, vario. Ex his duabus stirpibus fit miscellum tertium genus fructûs causâ.”*

This passage may be fairly translated thus:—“ If ever you should establish a Dovey, you would consider the birds your own, although they were wild. For two

* Varro, iii. 7.

sorts of Pigeons are usually kept in a Dovery; the one belonging to rural districts, and, as others call it, a Rock Pigeon, which is kept in towers, and among the beams and rafters (columinibus) of a farm-house, and which is on that account named *columba*, since from natural timidity it seeks the highest parts of roofs; whence it happens that the rustic Pigeons especially seek for towers, to which they may at their own pleasure fly from the fields, and return thither. The second kind of Pigeons is more quiet; and, contented with the food given it at home, it accustoms itself to feed within the limits of the gate. This kind is of a white colour principally, but the country sort is without white or variegated colours. From these two original stocks a third mixed or mongrel kind is bred for the sake of the produce."

The complete agreement of the above description with the Pigeons kept at the present day, ought to operate as a check against the too hasty adoption of the belief that all our Tame and Fancy Pigeons are derived and descended from the *Columba livia* or Blue Rock; or at least, which is all we ask, it may serve as a reasonable excuse for those who think they see sufficient grounds for entertaining a doubt respecting the accuracy of the generally-received opinion. One source of error is a careless use of terms; and we frequently find that persons, when speaking of Dovehouse Pigeons, only mean a mixed rabble of birds produced by allowing all sorts of mongrels to breed together as they will,—Varro's "miscellum tertium genus," in short; but these ought no more to be called Dovehouse Pigeons, than a pack of promiscuously-bred village curs ought to be called a pack of hounds: they are Tame Pigeons, that is all.

But whenever we use the term “Dovehouse Pigeon” in these pages, we wish to be understood to indicate not the Blue Rock Pigeon, the *Columba livia*, but the *Columba affinis*, to be next described. Both species tenant the Dovecotes belonging to old English farms and Manor-houses, in a little more than half-tame state. Both birds occupy the rocks, ruins, and caves of Europe, in a condition which has often been called feral, rather than wild; and both have at this moment an instinctive love and aptitude for the same unmodifiable semi-domestic life, in which we find them indulging for all preceding ages of time, till historic records cease to aid our search. The very early notices in ancient authors of the existence in their days of a gentler, tamer, more stay-at-home race of Domestic Pigeons, is equally remarkable.

Most people imagine that if Blue Rock and real Dovehouse Pigeons, such as we have specified, are reared in confinement, and petted and indulged in occasional flights and excursions, like Nuns, or Tumblers, or Powters, they will henceforward become as confiding in their manners, and as trustworthy as them in respect to the extent of their wanderings. The circumstance which first taught me the contrary, and led to a just appreciation of the distinction laid down by Varro, was this:—I had purchased a pair of Nuns, supposing them to be male and female; they proved a couple of hens, laying conjointly four eggs, and commencing incubation in the regular family style, exactly as in a former work I have stated that two female Swans will do, if they cannot find a mate of the opposite sex. To incubate four probably unfertilized eggs was a waste of vital warmth; so we removed these, and substituted a couple of Blue Rock Pigeon’s eggs, which were kindly supplied to me

by a neighbour who has a pure and choice stock. Two birds were reared, and they remained confined in company with the other Pigeons in the loft. During this time they were certainly shyer and wilder than other squeakers of the same age, and avoided, as much as they could, the society of the rest of their companions. Our whole stock of Pigeons then—a miscellaneous lot about four and twenty in number—had never been flown, but were kept constantly in confinement. When the Blue Rocks were about two months old, it was hoped that the other birds had become sufficiently attached to their home to be allowed to take a little outdoor exercise, and it was never suspected that any caution need be exercised with young birds hatched upon the spot. So one evening the prison door was thrown open: circle after circle was traced in the air; great was the clapping of wings, and proud were the struttings upon the roof-ridge. But our confidence was not abused, though some of them were old birds, and had been brought from a former home. They all re-entered their loft, except one or two that could not find their way in on this first indulgence with liberty, and which were taught the mode of entrance on the occasion of a subsequent airing;—all, *except* the strongest Blue Rock, the other not being yet able to perform long and continued flights. Instead of entering the house at reasonable supper-time, the runaway amused itself with illustrating Virgil's beautiful line

“Radit iter liquidum, celeres neque commovet alas.”

“It cuts its liquid way, nor moves its rapid wings.”

It honoured us for a short time by spending the night on the roof of the house; where it passed the day, or

how it fed, we knew not. At last it took its departure for good and all, and we subsequently learned that it had joined the parent colony, consisting of Blue Rocks only, about a quarter of a mile distant, from which it had been brought *in the egg*. I have since induced a few of these birds to stay with me, but only by placing their eggs under other Pigeons to hatch in my own loft. All attempts to get young Blue Rocks to settle with the rest of my flock have failed. They have always left us, as soon as they had sufficient strength of wing to do so. My neighbour's Blue Rocks often pass over our house, but they never alight to make the acquaintance of the Pigeons here: the most they do is to sink gracefully a little in their course, without altering its direction, and at once continue their journey to some distant field; for the Blue Rock Dove is not always "contented with the food given it at home," but will, if so minded, stray far and wide in search of provender. Powters and Fan-tails may be satisfied to lead an idle life, and to subsist on what is offered to them without exertion; but the Blue Rock prefers to earn for itself its daily bread, and likes the meal gained by independent toil, better than the feast held out as a temptation to sink into a condition of indolent servility.

Blue Rock Pigeons are fond of living in *large* societies. He who has most of these birds will be sure to continue to have most, from desertion, as well as increase. They decidedly prefer associating with their own counterparts and congeners, to mingling on easy and equal terms with tame Pigeons of quiet habits. Persons who keep a pure stock are averse to the intrusion of any of the fancy kinds: this may be merely intended as a precaution to maintain the purity of blood;

but the rule may be a traditional one, suggested by the fear lest the presence of these unwelcome strangers should drive the wilder birds to seek other haunts, where they may be undisturbed by the sight of new faces. "The New and Complete Pigeon-Fancier," by Daniel Girton, Esq., without date, tells us, p. 45, "The Dovecote, or common Blue Pigeon, being both prolific and hardy, is most worthy the attention of country people, as it is generally remarked that the small Pigeons rear the greatest number of young ones; but when the breed of Pigeons proves too small, it will be proper to intermix with the Dovecote a few of the common tame sort; *in the procuring of which, care must be taken not to select them of glaring colours, for the rest will not easily associate with them.*

Carriers seem to be kept as Dovehouse Pigeons in the East, and the Blue Rocks would in England answer as letter-carriers better than many of the fancy kinds: the range throughout which they traverse is so exceedingly extensive, that they would find their way from any moderate distance without difficulty. When crossed with Carriers, the result is a larger, longer-shaped bird, of considerable power. The Blue Rock is not even mentioned in the excellent "Treatise on Domestic Pigeons," attributed to Dr. Moore, from which subsequent pamphlets published as guides to Pigeon-Fanciers have taken so much without acknowledgment.

It is not very common now in Norfolk to meet with an old Dovecote stocked with the real *Columba livia*, its place being mostly occupied by a few pairs of mongrels. The species, though not rare, is far from being so frequent as it used to be: and it looks as if the more

general tillage of the land, and the increase of population in many parts of the kingdom, had driven the birds away to take refuge in a quieter home, find wilder districts to traverse in their foraging excursions, and leave the old nesting-places to be occupied by a more tame-spirited race. So that an ancient Dovecote, well filled with a thriving colony of Blue Rock Pigeons, is really an aristocratical affair; and it ought to be valued and maintained in the same manner as the old oaks and elms, or the rookeries and heronries belonging to an estate. An inspection of the provincial game and poultry-shops will show that a large proportion of the young Pigeons now brought to table are not Blue Rocks, but Dovehouse Pigeons; besides Powters, and Tumblers, and perhaps foul-feathered or cross-bred birds of other tame kinds: many of the Tumblers are sold dead for sixpence or ninepence each, which, when adult, would fetch in London very fair prices from amateurs. And Tumblers of the ordinary kind—not the much-valued specimens of hereditary deformity, with spherical heads and no beak—are *now* found more profitable in many situations to breed young birds for the market than the capricious unmanageable Blue Rock Dove.

Maritime localities seem to be the favourite haunts of this bird, whether wild or tame; and as Venus is fabled to have arisen from the sea, so her emblematic and attendant Doves are delighted to frequent its vicinity. I have seen them at Great Yarmouth fly down to the beach, to drink of the small pools of salt water left there by the tide, though plenty of fresh water was to be had within, for them, an easy distance. Rocky islets, and caverns in sea-washed cliffs, are known to be of all habitations the most attractive to them. The

coasts and innumerable islands of the Mediterranean are still famous, as they have been ever since the historic memory of man, for the plenty and excellence of the Rock Pigeons which have located themselves in various situations there. Colonel Napier, in his amusing and spirited "Wild Sports of Europe," thus describes his meeting with them at Marfa, a decayed palace or villa situated at the western extremity of Malta:—

"On learning that our professed vocation was to wage war on the beasts of the earth, the fowls of the air, and fishes of the sea, the old Pensioner who was in charge of the place, and was known by the name of Sans Façon, expressed his regret that it was too early in the season for the Tunny fishery, which he described as being well worth seeing, and which has been celebrated in history even from the times of the Phœnicians. He, however, proposed to accompany us on a shooting excursion, and promised to indicate the usual abodes of the Blue Pigeon, which in great numbers frequents all the precipitous cliffs forming the boundary of this rocky coast. We accordingly sailed out, and proceeding in a southerly direction towards the cliffs, went over ground such as in all my wanderings I had never before witnessed. * * * * * * *

"Leaving this scene of desolation—this wide bed of lava and volcanic deposit—we gradually ascended, as the abrupt and rocky shore now assumed a still bolder appearance, and rose to stately cliffs, at whose foot broke the foaming surge with a dull and sullen sound, subdued and deadened to our ears by the fearful height we had attained above the angry and boiling billows. This was the resort of our feathered *foes* (?), who, started from their nest by the stones hurled over the perpendi-

cular sides of the precipice by old Sans Façon, afforded us capital shots ; but as all our victims found a watery grave, we were soon convinced that to secure the killed and wounded a boat would be necessary, in which to coast along under the cliffs ; and it was now too late to think of such an accessory.”*

Another acute sporting naturalist gives a companion picture, sketched on British ground.

“Blue Rock Pigeons live in all the caves on the coast of Sutherland, and are to be seen flitting to and fro from morning to night.

“Although the wind had now fallen, the swell was tremendous, dashing the spray half way up the rocks. It was a curious sight to see the Rock Pigeons flying rapidly into the caves, sometimes dashing like lightning through the very spray of the breakers, scarcely topping the crests of the waves, which roared and raged through the narrow caverns where these beautiful birds breed. The Rock Pigeons were very numerous here, and constantly flying between their wild but secure breeding-places and the small fields about Durness. I shot a few of them, and found their crops full of green food, such as clover, the leaves of the oat, &c. [Fancy Pigeons rarely if ever practise the habit of eating green food.] A number of small shells were also in the crop of every bird. The Rock Pigeon is a very beautifully-shaped little bird, rather smaller and shorter than the common house Pigeon [*i. e.* the domestic Rock Dove], of which it is plainly the original stock. They seem very restless, seldom remaining long in one field, but constantly rising and flitting away to some other

* Vol. ii. pp. 64-6.

feeding-ground, with an uncertain kind of flight; but when alarmed, or going straight home, they fly with very great rapidity. [The domesticated birds have exactly the same habits.] They are easily tamed when caught young. The eggs seem very difficult to get at; nothing but a ladder will enable a person to reach them, and it is almost impossible either to procure such a ladder, or if procured, to carry it to the caverns where they breed."*

Great confusion has arisen, and erroneous theories have been founded, by attributing to the Fancy Pigeons the habits of the Blue Rocks, and vice versâ, and so proving the question by arguing from imaginary premises. Thus Temminck, to prove the original identity of the above-mentioned birds, says "Our Dovehouse Pigeons, voluntary captives, (are they captive at all?) nevertheless sometimes abandon the commodious establishments which we offer them, and desert our Dovecotes; they appear to throw themselves into their ancient state of nature, and select the crannies of old towers, or hollow places in trees (?), in which they make their nest and rear their young; and these latter, whether by instinct or need, often return to install themselves afresh in the very buildings from which their parents had fled." The next sentence explains the whole matter, now that we have a clue. "Moreover, these deserter Pigeons, which are also called Rock Doves, do not differ in any manner from the *Biset* of the Dovehouse, nor even from the wild *Biset*."† Now, the fancy Pigeons, the truly tame Pigeons, do not reassume wild habits: when they lose their way, or

* St. John's Tour in Sutherland, vol. i. p. 285.

† Hist. des Fig. et Gall., vol. i. p. 126.

escape from a new and therefore a distasteful home, they do not betake themselves to the rocks or to the ruins, but enter some trap or loft, or join some other flock of tame Pigeons: the Pigeons which do assume that state of independence are always either Blue Rocks, or *Columbæ affines*, not Powters, Fantails, &c. Whereas the Blue Rocks do not voluntarily take up their home in a trap, but, as my experiment proved, will escape from a home that is too much interfered with, even when hatched by that quiet bird the Nun. How many Blue Rocks has a Pigeon-fancier ever trapped? Buffon, though his theory of the diversities of species amongst Pigeons is far bolder than Temminck's, does not make this confusion in the habits of the real Dovehouse and the Fancy Pigeons.

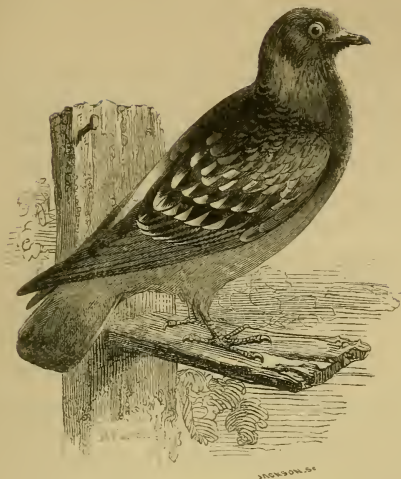
A main characteristic in the plumage of the *Columba livia* is the absence of *spots*, which are so remarkable a feature in that of the *C. affinis*. The bill is dark slate-colour, with a whitish cere at the base: the head also is slate-colour, continued down the neck and belly, with iridescent hues of green and purple. The back and wings are paler slate-colour, or a sort of French gray. The quill-feathers are darker towards the tips. Across the wings are two very dark bands; the rump is whitish; the tail is of the same colour as the head, each feather being darker at the portion *near* the end, so as to form a dark semicircular band when the tail is outspread in flight. The feet and toes are coral-red; the claws black. The irides are bright orange, shaded to yellow towards the pupil, which is black. The joint weight of three birds now brought in for inspection is 2 lbs. 9 oz. The only variety of the *Columba livia* which I have ever seen, or heard of on any authority, are light blue specimens,

with the bars on the wings and tail very distinct ; such birds are extremely beautiful, and it may be suspected whether many of these are not merely individuals that *have quite arrived* at their adult plumage.

In sheltered situations, with plentiful food, they will breed nearly all the year round, except during moulting time. Blue Rocks were with me the first to recommence laying this autumn (1850). A pair had two eggs on the 19th of November. The next pair to breed were a Blue Rock hen and a cock Tumbler that had mated together. The flesh of the young birds is excellent, and by some connoisseurs is esteemed superior to that of any other species ; but it must be made into pies, being seldom fat enough to roast. For this purpose we must have recourse to the large lazy Runts.

But “Pigeons,” saith Willughby, “are far harder to concoct than Chickens, and yield a melancholy juyce. They say that the eating of *Dove’s* flesh is of force against the plague ; insomuch that they who make it their constant or ordinary food are seldom seized by pestilential diseases ; others commend it against the palsy and trembling ; others write that it is of great use and advantage to them that are dim-sighted. The flesh of young Pigeons is restorative, and useful to recruit the strength of such as are getting up, or newly recovered from some great sickness : to us it seems to be most savoury, and if we may stand to the verdict of our palate, comparable to the most esteemed.”

The distinction between the Blue Rock and the Dove-house Pigeons has long been known to dealers, less so to fanciers, and scarcely acknowledged by naturalists. The latter bird is much the more common inhabitant of Dovecotes, and when it betakes itself to a feral state,



Dovehouse Pigeon (Columba affinis of Blyth).

exhibits less dislike to the neighbourhood of man. A few pairs build their nests among the cornices and capitals of the public buildings even in London; and the church steeple of Morningthorpe in Norfolk was lately tenanted by some of these birds, whose nesting-places had been pulled down*.

Mr. E. Blyth† gives an account of the Rock Pigeon of India, which he believes to be distinct from that of Europe, and of some domestic Pigeons of the same

* A still stranger settlement was this: "The other day, examining a wooden railway-bridge across a drain, I found several Pigeons building underneath, in spite of the thundering of the trains which were constantly passing within a few inches of their heads."—W. W. C.

† Annals of Natural History, vol. xix. p. 101.

Continent ; and if anything would prove that the Fancy Pigeons are not *lusus naturæ* from our Rock Pigeon, it would be his supposition that "sports," as nearly as possible coinciding with ours, are also derived from the independent Indian original. He writes as follows :

"*Columba intermedia*, Strickland, *Ann. and Mag. N. Hist.*, 1844, p. 39.—*Indian Rock Pigeon*. These birds rarely, if ever, perch upon trees, except under peculiar circumstances, as when a Dovecote of Domestic Pigeons is placed near a tree with large and convenient shaped boughs, in which case the Pigeons will commonly resort to the latter to sit and roost, but never to form their nests. In their wild state it is probable that they never perch at all, retiring to roost and nestle in caverns and small hollows of rocks or sea-cliffs, in the absence of which they select buildings that offer suitable recesses, breeding in the capitals of pillars and whatever other convenient nooks they find. Hence, when unmolested, these house Pigeons soon become familiarised with man, and require little encouragement to merge into the domestic condition.

"The common wild Blue Pigeon of India is most closely allied to the European *C. livia*, but it is rather a deeper slaty-gray, with invariably a deep ash-coloured rump ; whereas *C. livia* has as constantly a pure white rump : there appears to be no other distinction between them, unless it be that the play of colours on the neck is finer in the Indian bird. The same difference in the colour of the rump is observable in the Domestic Pigeons of the two countries, whenever these tend to assume the normal colouring ; for *the tame Indian Pigeons are as clearly derived from the wild C. intermedia as those of Europe are from C. livia.*"

The fact of such derivation is here assumed, without questioning the truth of the doctrine. But it does seem to us a most curious result, and contrary to the course of chances, that so anomalous a monstrosity as the Fantail (if it be monstrosity), should be equally generated, with such complete similarity as to be a duplicate specimen, from two distinct and aboriginal species, one existing in India, the other in Europe. It appears just as improbable as that two wild species of *Brassica*, one native of Asia, the other of Europe, should each throw off, as seedlings, an identical variety of brocoli.

Mr. Blyth goes on to describe the Indian Rock Pigeon:—"Colour slaty-gray, darker on the head, breast, upper and lower tail-coverts, and tail, which last has a blackish terminal band not well defined; *nuchal feathers divergent at their tips*, and brightly glossed with changeable green and reddish-purple; two black bars on the wing; the primaries tinged with brownish, and the outermost tail feather having its external web gradually more albescent to the base. Irides brownish-orange, the lids bluish-white; bill black, with a white mealiness at the tumid base of its upper mandible; and legs reddish-pink. Length 13 by 23 inches; of wing $8\frac{3}{4}$ inches."

What follows is especially deserving of attention from the speculative naturalist:—"In some specimens, particularly among the semi-domestic, slight dusky streaks occur on the shafts of the lesser wing-coverts, which streaks, in the latter, are often much more developed, spreading across the feathers and spotting the whole wing; such birds much resembling (except in the rump not being white) a race of wild Pigeons that

are abundantly brought at times to the London markets—all of them shot birds; but the latter have not, in addition, the two black bands on the wing well-defined, as seems to be regularly the case with this variety of *Columba intermedia*. Moreover, in the English bird, the spotting of the lesser wing-coverts does not occur on the shafts of the feathers, but partly margins each web, excepting near the edge of the wing, where the feathers are unspotted. *I suspect that the wild Rock Pigeons of the south of England are mostly of the kind alluded to, which may be designated C. affinis; while those of North Britain, and it would seem of Europe generally, are true C. livia.*”

We quite agree with this discriminating separation of the blotched Pigeon from the softly-shaded and decidedly-barred colouring of the genuine Blue Rock Dove. Some time since this distinction was pointed out to us, and its permanence insisted upon, by an experienced Norwich Pigeon-dealer, named Alexander, who is no longer on earth, and who died in the possession of much unrecorded knowledge on the difficult subject of Fancy Pigeons. The markings on the wing of the *Columba affinis* somewhat resemble those of the Passenger Pigeon, but no one will surely assert that there is any derivation in this case. Many Pigeon-dealers distinguish the *affinis* from the Blue Rock Pigeon, calling it the “Dovehouse,” vulgo “Duffer;” but both are equally occupants of Dovecotes, and both are equally ready to assume the wild or feral state, though the former is more commonly found so, at least in the southern half of England. There is reason to believe that in domestication they would breed with each other: but the claims of *C. affinis* to be regarded as a species de-

serve to be fairly considered, although Mr. Yarrell has not admitted it into his arrangement of British birds. It did not enter into that gentleman's plan to include domesticated varieties; and he doubtless regarded this as a mere offspring of altered conditions from a state of nature, and a case of "breaking," as it is called, in colouring.

But what is it that we give to, or provide for, our Tame and Dovehouse Pigeons, that *should* give rise to such wonderful physical changes? The Fancy kinds, *after we have received them in that character*, are indeed confined, over-fed, and kept warm, without, however, any remarkable novelties being *ever* struck out, that any one can undertake to demonstrate. But the others have much their usual food and exercise and dwellings: they are not more snug in the Pigeon-loft than they would be in a hole in a rock, or in a ruin: they cannot fill their crops fuller in the court-yard than they would on the barley stubble, the pea-field, or the new-sown wheat: and to us the great wonder is that naturalists have not shrunk from admitting effects without causes quite so readily as they have done.

Mr. Blyth proceeds: "Here, again, we have three closely-allied species (namely, the *intermedia*, the *livia*, and the *affinis*), analogous to the three yellow-footed Hurrials, or arboreal fruit-eating Doves; *and if they are to be regarded as mere varieties of the same, what limits can be assigned to the further variation of wild species?* *Col. leuconota* is but a step more removed, *and I doubt not would equally merge and blend with the others in a state of domesticity.* Equally allied are *Treron sphenura* and *Tr. cantillans*; *Tr. apicauda* and *Tr. oxyura*; and if we grant also some variation of size,

we have *Tr. bicincta* and *Tr. vernans*; *Tr. Malabarica* and *Tr. chloroptera*; *Turtur Chinensis* and *T. Suratensis*; *T. meena* and *T. auritus*, &c., &c., which might be regarded as local varieties of the same; and we might thus go on reducing the number of species *ad infinitum*, with no useful definite result, but to the utter confusion of all discriminative classification. However closely races may resemble, if they present absolute and constant differences, whether of size, proportions, or colouring, and if they manifest no tendency to grade from one to the other, except in cases of obvious intermixture, we are justified in considering them as distinct and separate; and more especially if each, or either, has a wide range of geographic distribution, without exhibiting any climatal or local variation."

If this bold and judicious dictum be applicable to any family of birds, it assuredly is to the Columbidae; which, else, might be made to represent almost an unbroken sliding-scale, from one extreme member of it to the other. So we will now take advantage of the impression made upon the reader, and leave him to think over the matter quietly by himself.

The bird now under notice is the species most usually employed in the trials of skill called "Pigeon-matches." Blue Rocks will do, but are not so easily to be had: the low-priced mongrels of Fancy Pigeons are objected to, as often affording by their colour an unfairly easy mark, and apt to be less bold and dashing in their escape from the trap. The Dovehouse Pigeon, or "Duffer," is the victim which has the most frequently to run the gauntlet for its life.

Pigeon-matches have been much carped at, and even openly condemned, by unthinking persons, who do not

intend to be hypocrites, but who, to escape the charge of inconsistency, ought to abstain altogether from Pigeon-pie at least. It is so easy to talk humanely, when not the slightest point of self-denial is involved thereby; but if Pigeons are to be killed and eaten, it is surely a greater act of generosity, to say to the victims, "There, go! flee for your lives; save yourselves if you can, for the present!" than to wring so many dozen necks, and toss the fluttering bodies on the ground. Many, of course, are shot; but some escape; the maimed and wounded rarely suffer long, as the camp-followers of such meetings keep a sharp look-out, and bag every bird which is touched without falling within the proper distance. And when these trials of skill are made the subject of unfavourable remark, it is forgotten that we live in a land of butchers, and poulterers, and people licensed to deal in game; and that in this crowded population, and in these heaving troublesome times, no one knows whose turn it will next be to have to search for a home in lands where people must often either be their own poulterers, keepers, and butchers even, or go unsupplied. The lady whose husband or brother is out in the bush, gun in hand, searching after fresh meat, which she and her children may not have tasted for days, or perhaps weeks, and which he is anxiously hunting for, as necessary to the health, it may be the life, of one of his ailing companions in the wilderness, will then call to mind, with wonder and contempt, the sneers which in former days she may have heard thrown out respecting the sinfulness of shooting. The remembrance that her friend and protector once made a successful hit at a Pigeon-match, will not then make her less confide in or respect him

But there is *betting* at Pigeon-matches!—so there may be on any occasion; and betting on trials of skill is surely less culpable than on matters of chance. Heavy bets have been made on which of two drops of rain on a window-pane would first run down to the bottom; but the ultra-precise folks ought not, therefore, to blame the rain for falling. They are at liberty to censure the bettors as much as they please; but they should not grumble at the circumstance either that rain falls, or that Pigeons are shot with guns. Had I the happiness to be blessed with a son, it would be an early care to have him taught the skilful, and, I hope, judicious use of fire-arms. The sterling English good sense of that worthy pillar of the Church, *Thomas Fuller, B.D.*, Prebendarie of *Sarum*, declared that, “*above all, shooting is a noble recreation, and an half-liberal art.*” A rich man told a poor man that he walked to get a stomach for his meat: *And I*, said the poor man, *walk to get meat for my stomach.* Now shooting would have filled both their turns; it provides food when men are hungry, and helps digestion when they are full.”

And the chance of the poor Duffers getting away is really greater than may be imagined. Every one who handles a gun is not necessarily a dead shot. In “*Bell's Life in London*” for June 3, 1849, one record out of many of such doings may be found; and an extract is given, just to show that for a Pigeon to be thrust into the fatal trap, is by no means an inevitable sentence of death

“On Friday week Mr. R. Rollings and Mr. W. Green (both of Barnsley) shot a match at Hyde Park, Sheffield, for £50 a side, at 20 birds each, 21 yards rise, $1\frac{3}{4}$ oz. of shot, Hyde Park boundary; Mr. Rollings

won, killing 12 out of 20, Mr. Green only scoring 7 out of 17. Mr. James Fox, corn-factor, and a gentleman from Barnsley, shot for £2 at 5 birds each, 21 yards rise, $1\frac{3}{4}$ oz. of shot, the usual boundary ; they tied, killing 2 each." If this were the rule, the Pigeons would certainly prefer falling into the hands of the gunner rather than of the poulterer ; but we read further on that a sweepstakes was also shot for by seven gentleman, at 3 birds each, distance according to calibre ; Messrs. Porter and Willcox killed *all* their birds, and divided. It must also be confessed that the birds which escape, on returning to their homes, may perhaps be again re-caught and sold, to be shot at just *once* more. It would be no more than fair if every owner of a Dovecote were to give every 'scaped Pigeon a twelvemonth's grace afterwards at least.

The sport is also disapproved of by the high authority of "Nimrod Abroad ;" but he does not make out his case against it so well as some of the friends of humanity might wish. "Pigeon-shooting," he says, "is carried on upon a large scale in the Tivoli Gardens, in Paris. It is one of those modern innovations on legitimate sporting which I could never bring myself to approve of ; and were I to require an argument against it, on the score of *wanton* cruelty, I should find it in the fact of the almost incredible number of a hundred and ninety thousand Pigeons having been let out from the traps in these gardens alone, since the year 1831."

But Mr. Apperley's book was published in 1842, or 11 years afterwards. The division of 190,000 by 11 gives 17,272 per annum,—not 1500 per month, nor 400 per week ; *i. e.* not a hundred a day to supply a luxurious metropolis, especially fond of *patés*, *entrées*, and

the little piquant dishes for which the smaller birds are in such demand; so that the poulterer, to furnish the requisite supply, will have to be much more *wanton* in his destructiveness, if not in his cruelty, than the Pigeon shooters.

“This exhibition was founded by an Englishman of the name of Bryon, who is the publisher of the French ‘*Racing Calendar*,’ and I received from him the following curious facts:—‘At its commencement, sixteen poor peasants were employed to bring the birds from Normandy and Picardy, travelling on foot with their dossers (*hottes*) on their backs. They are now enabled, by the liberal reward of their labours, to convey them, to the amount of 2000 per week, in well-appointed carriages, drawn by horses of their own.’ [It is likely, we have seen, that many of the Pigeons that travel thus to Paris in state, in carriages, with their own horses, return exulting on their wings, to their native Dove-cotes.]

“To this extent may some good be said to arise out of evil. And one more benefit has sprung out of this mania for Pigeon-shooting; it has created a great improvement in gun-making, and has been the cause of one of the first artists in that line in London transferring his business to Paris, where I have reason to believe he has met with much encouragement; and no doubt Paris gun-makers have taken a leaf out of his book.”*

The high temperature of the living Pigeon ought to be noticed, before we quite quit these birds: when handled, especially in a partially-fledged state, they

* Vol. i. pp. 203, 4.

feel quite at fever-heat. The blood, fresh-drawn from the living bird, was a most *virtuous* remedy with the old practitioners: and Willughby informs us that “A *live Pigeon* cut asunder along the back-bone, and clapt hot upon the head, mitigates fierce humours and discusses melancholy sadness. Hence it is a most proper medicine in the phrensie, headache, melancholy, and gout. Some add also in the Apoplexy. Our physicians use to apply Pigeons thus dissected to the soals of the feet, in acute diseases, in any great defect of spirits or decay of strength, to support and refresh the patient, that he may be able to grapple with and master the disease. For the vital spirits of the Pigeon still remaining in the hot flesh and blood, do through the pores of the skin insinuate themselves into the blood of the sick person now dis-spirited and ready to stagnate, and induing it with new life and vigour, enable it to perform its solemn and necessary circuits.”*

The modern substitute for a live Pigeon cut asunder would be perhaps a hot foot-bath, or even a mustard plaister, or a simple poultice.

Several pairs of these birds are usually kept by breeders, to act as nurses to those more valuable Pigeons which are notoriously bad feeders of their young. The mode is, to substitute a couple of the eggs desired to be hatched, for those of any Dovehouse pair that happen to have laid within a few days of the same time. But it is worth knowing, that squabs of about a fortnight old, which chance to be neglected by their parents at that early period of their existence,—as now and then will be the case in the best-regulated

* Page 183.

Pigeon-lofts,—may often be reared *by mouth*. The human nurse takes a small quantity of peas or wheat, and water, into his or her mouth, then, taking the squab in hand, inserts its bill into the mouth so provisioned; and, after a trial or two, the young bird will take its food in this manner as readily as if it were fed by its feathered parent, and thus progress till it is able to peck for itself from the ground.

THE COLLARED TURTLE*.

(*Columba risoria* of Linnæus, *Turtur risorius* of authors.)

The charming little creatures which we now approach are admitted into the class of Pigeons that are found both in a wild and a domestic state rather by courtesy than by right. Still, the *entree* shall be granted to them, although Mr. Jenyns has omitted them in his “Manual of British Vertebrata,” in which domesticated, naturalized and extirpated species are included. In their wild condition they are met with in Southern Europe, Northern and Western Africa, and in Western Asia; in their tame state they are dispersed all over the civilized globe, where the winter temperature does not forbid their introduction. As domestics, they can hardly be said to have yet received a sufficient training. Their intellect has just

* A confusion exists, in the minds of many people, between the Common Turtle, *Columba Turtur*, which is frequent in a wild state in England during the summer months, and the Collared Turtle, or Turtle Dove in popular English, or *Turtur Indicus*, as given by Aldrovandi, according to custom *cum latyro altero*, which in England is only known in captivity. As the European Ring-Pigeon has a similar ornament on the neck with our species, a further distinction has been founded on its cry of triumph, which strongly resembles a laugh, and from which it has been called the *Turtur risorius*, or Laughing Turtle.

attained to that child-like stage of development, that they love everything about them intensely, and are pleased with everything they see ; but if they were once lost in the labyrinth of a lane, or in the mazes of a grove, they would wander up and down, like the babes in the wood, picking a seed here and a berry there, searching in vain all the while for their wished-for cage or chamber, till they were drowned in the first thunder storm, or perished by the first frosty night. And then the Robin Red-breast, or the sighing wind, would cover them with leaves, and complete their sylvan funeral.

If we could but advance this incomplete mental growth only just a little, and add to it the intelligence and domesticity of the fowl, and the local memory of the Carrier, we should then have a bird which, in spite of the tenderness of its constitution, would occupy a very important place in our rural economy. One objection to the popularity of the new live stock might be, that Englishmen are nearly as obstinate as Jews in matters of eating. Many good things do we despise and reject, only because we have not the courage to taste them. Pigeon-pie is orthodox, but one filled with Turtle Doves would be repugnant to a sentimental stomach. Turtle Doves are, nevertheless, excellent eating. We do not object to innocent lamb, nor to gentle veal, nor to dear little chickens, nor to baby-like sucking-pig : why such prolific and easily-reared delicacies as Collared Turtles should be tabooed is scarcely explicable. Perhaps they may henceforth come in fashion as a side-dish. A moderate-sized aviary would produce them in considerable numbers at no great cost.

But if we want to proceed further, the grand scheme of nature is unalterable by us. We cannot educate and

improve the Collared Turtle to be a Dovehouse Dove—at least a two-thousand years' trial has proved unavailing. These unyielding limits assigned by the Creator *must* be acknowledged to have an existence as a rigid law. The correct interpretation of such psychological facts regarding the inferior animals, and their proper inferences, are what it is so desirable, now-a-days, to insist on.

The Collared Turtle, we know, has been intrusted sometimes with a sort of half-liberty—the run of a large mansion, or the permission to pop in and out a greenhouse;—but which is in reality much about the same degree of licence as would be granted to the five-year-old heir of a noble family: he is just allowed to exercise himself *under strict observance*. He is not permitted to go abroad on his *parole*, because people are assured that the *parole* would not, and could not, with his present thoughtlessness, be kept. And so the Collared Turtle is allowed to play at domesticity, but is, all the while, only a jealously-watched captive. The Rasorial peculiarity of eminent domesticability, as assumed by Mr. Swainson, fails to be apparent in the family of Pigeons, as well as in the true *Rasores* themselves. Among the many scores, or hundreds, of species comprised therein, how many of them are truly domesticable? My own birds have often got loose in summer time; and they seemed to think it excellent fun to do so. And then they would go cooing about with short flights from tree to tree, sometimes keeping close at home, sometimes getting out of bounds and losing themselves. The coo answers the purpose of a call-note when the pair are invisible to each other among the branches. It has escaped from Aristotle, in his

account of Pigeons, that *blinded* Turtles were frequently kept as decoy-birds. But our runaways were at last heartily glad to be caught and brought home ; and like truant schoolboys on the approach of night-fall, would rather encounter a scolding, or even a whipping, than face the horrors of a supperless night, without a bed to lie on !

These outbreaks sometimes lead them into scrapes which they little anticipate. One spring morning, eleven years ago this season, an old parishioner of mine, a carter by trade, on his usual journey to and from Norwich, was surprised by a pair of Collared Turtles hovering about his head and shoulders, as he was riding leisurely on his tumbril, and showing themselves desirous of alighting thereon. Doubtless they were tired with some, to them, long flight from comfortable quarters. He secured one, the male (as he might the other had he chosen), and brought it home. It has been kept ever since in a small cage, and seems perfectly happy and healthy, having no domestic troubles to vex it. I would have brought the people a mate for their bird, but they were contented with the single one ; and as the old couple are both turned of eighty, their little captive may probably survive them.

A lady residing near Cork had, in 1849, a bird of equal age with this. A communication with which she has favoured me will show exactly with what amount of truth the term “domestic” is applied to the Collared Turtle.

“My opportunities of observing the attachment of these birds to *place*, have been very limited ; for, owing to the damp and cold of our climate, I have never ventured them out in the open air, except during the day ;

and then the plan adopted to secure them from flying away was, to keep the female either in my hand or shut up in a large cage, thus surely preventing the male from straying out of sight; for the Collared Turtle is a most loving and devoted husband. However, one bird, an old bachelor who had no wife, once flew out through an open window; but I succeeded in bringing him back from an open garden, by calling him repeatedly, until he recognised my voice. The little creature seemed frightened, and was greatly delighted to find himself again perched cooing on my shoulder. One of our Doves, a great pet, will, when it chooses, find its room quickly enough, though it may have to travel from the furthest part of the house to arrive at it."—*S. A. D.*

Mr. Richard Dowden (Rd.) of Rathlee, the father of the preceding informant, observes—"The mythological use of Doves, as an emblem of affection, is common among us; but to make them also representatives of friendship would be a mistaken notion; for these birds, though tame, are not affectionate to those who keep them. Still it is no error in their history to make them 'Venus' birds;' for their attachment to each other is strong, and the uneasiness of one, when separated from the other, remarkable, not in the one taken away only, but in that left behind; and when one of ours was caught and held, the other constantly braved the danger and perched close to its mate. I once saw a pair in Glengal Wood, County Tipperary, sitting faithfully side by side on a tree, but they must have escaped from an aviary, and in all probability would not outlive the wetness, even if they could the coldness, of an Irish winter. For though common in the south of Europe and in Asia Minor, they are, in those countries, only

birds of passage. They appear at times in Portugal, and are shot there for food.

“ These birds may be easily kept. They will live well on wheat, barley, bread in crumbs, or even boiled potatoes. They ought to have a flat vessel of water to wash in, as well as to drink, sufficient earth with gravel to rub themselves in, and from which they can select stones for swallowing into their gizzards, for the trituration of their food. They should also have a piece of rock-salt, which all the group are very fond of, and it seems to be a wholesome stimulant to their system. Cages are too small for their healthy, handsome, and vivacious existence. They like to fly at times from perch to perch in a room, which should be well lit, not exposed to cold, and, above all things, frequently cleaned out. They enjoy sunshine much, and in it exhibit very elegant attitudes, and good contrivances to receive as much of its light and warmth as possible.

“ The Collared Turtle is strictly monogamous, and it is from their constancy and tender affection for one another (for their attentions deserve the name) that the characteristic has been proverbial. Observation shows that with respect to these birds the rhymes ‘ Love and Dove,’ ‘ Wooing and Cooing,’ have reason in them. The male is somewhat larger than the female, and the colours a little lighter, but the distinction is so slight as to require a practised eye to notice it. The male is also a bolder bird, so pugnacious as to fight even with inanimate objects ; although the female, when sitting on her eggs, or when nurturing her young, is courageous, and even passionate. The distinction between the grain-eating and the strictly rapacious birds is in this circumstance very remarkable : the females of the last divi-

sion being the boldest, the strongest, and the most beautiful. Most of the Columbidae are strong flyers; but frequently when allusion is made to this power, it is not our bird which is called 'the Dove.' Shakespeare, our constant resource in the poetry of natural history, makes Juliet say,—

‘Love’s heralds should be thoughts :

Therefore do nimble-pinioned Doves draw Love’—

meaning the Carrier Pigeon; which is also beautifully alluded to in Moore’s sacred melody of ‘The Dove let loose in Eastern skies.’

“The Laughing Dove builds a rather careless plan of a nest. In conformity with Mr. Rennie’s description in the ‘Architecture of Birds,’ it is a platform-builder: both male and female assist in the work. The birds sit alternately and assiduously. The cooing of the bird which is not sitting is incessant, and the attention paid to the one on the eggs most exemplary and creditable to their family character. After the chick is hatched, a white secretion is supplied, from the crop of both male and female, to the young; its bill is then quite soft, and is thrust down the throat of the parent birds for nutriment; which action, like most functions of necessity, is a pleasure to the giver as well as to the receiver. This lactiferous secretion has led to the existence of the once problematical notion respecting ‘Pigeons’ milk.’ As the bird grows and begins to peck, the parents put him on his own resources; the secretion grows less; the young bird sheds the outside skinny covering of his soft or sucking bill; it gradually hardens so that he can peck gravel and corn; and his parents turn him adrift to form other friendships for himself, as they then have done with him.”

Miss Dowden adds (and I can confirm her observations), "I have often watched with interest what may be called the education of the young birds. When they are about a month old, the female considers it high time for them to learn to support themselves. She therefore refuses to feed them more than twice a day. But the youngsters, not liking the trouble of picking up the hard grains of wheat, &c., become clamorous, and chase whichever parent happens to come in their way, stoutly demanding food all the while. The mother acts up firmly to her principles; so, finding her unyielding, they then attack their unfortunate father. *He* cannot resist their cries and flapping of wings, and good-naturedly opens his mouth for the reception of the soft spoon-shaped bills. But he is made to suffer for his weakness; the lady soon drives away the petitioners, and then beats her lord right well, laughing heartily all the while, for attempting to interfere with her system of instruction."

This discipline is often so severe, and commenced so early, that the young ones must be removed and brought up *by mouth*, if it is intended to rear them at all. The Collared Turtle will also exercise its combativeness on any strange bird of moderate size that ventures to intrude within its aviary.

"It is amusing," Miss Dowden continues, "to see the little things trying to coo, going through all the movements, but only uttering a whistling sound. The laugh is easily accomplished, for at a very early period of their lives the birds are able to make this exulting sound. I am not sure that Papa noticed to you the great watchfulness of the Dove. Each time during the night that the clock strikes, my birds announce the fact by cooing

loudly. Any noise is observed by them, and *never* passed over in silence." With us, the sound of a piano in an adjoining room, or the tramp of footsteps in a passage close by, excites the never-forgotten coo. Of all sleepers the Collared Turtle is one of the lightest; and the beautiful allusions in the Holy Scriptures to "mourning like a Dove," have a most apt reference to the wakefulness of sorrow.

The voice consists principally of a coo, very loud for the size of the bird, and a recovering suspiration, which has an audible sound. There is also a slight note of alarm, like a low grunt, which is likewise used by them as an indication of recognition when pleased. The note of triumph, the laugh, appears to be emitted on the same occasions that the common Cock crows, such as in warlike exhibitions, or after having flown down from a height, at the appearance of sunlight perhaps, or such-like exhilarating events. A young friend of ours interpreted the coo to mean "Pope o' Rome, Oh ! Pope o' Rome, Oh !"—but this translation of the Turtle's notes, it ought to be mentioned, was made before recent events had occurred to render such an invocation highly objectionable. The prettiest performance is when the birds coo a duet: it is then very like the tenor at an opera singing the refrain of an air, which is immediately repeated an octave higher by the responsive *prima donna*.

Another observant friend furnishes the following account:—"A pair of Turtle Doves I kept tame for some time were exceedingly amusing and interesting little birds. At first they were confined in a large wicker cage, but afterwards were gradually allowed their entire freedom, which they never abused. They do not

seem to be affected by the cold in winter, if common care be taken not to expose them on severe nights, and they breed amazingly—seven or eight times in the year, if permitted to hatch; but if the eggs are taken away (and I was generally obliged to do this), nearly twice as often. These Doves build a slight nest of sticks, the hen being the architect, and the cock bringing material. She lays two white eggs.

“Young birds do not have the black ring round the neck distinctly marked till they have moulted. They are fed on canary seed (hemp seed is apt to give them skin disease), bread, and bits of biscuit, which last they are very fond of, and would come into the room to persecute me till the box was opened for them. They were coaxing little creatures, and would come and sit by me when reading, sometimes on my shoulder, merely for the sake of company. The cock puts himself into the most ridiculous attitudes when pleased. Like most pets, they came to an unlucky end, the hen being choked by trying to get out of a window not opened sufficiently to admit her body to pass through.”—*H. H.*

Their feet are formed for walking and perching; they feed on the ground accordingly, but most usually roost upon a perch. Their colour is a light fawn of different depths of shade, the back the deepest, with a nearly black half-collar on the hind neck, inserted within a very narrow white circlet, which throws up the dark collar brilliantly. The irides are crimson, the pupil black, the bill black, the feet lake red. Mr. Blyth states*, that “Besides the common cream-coloured

* Annals of Natural History, vol. xix. p. 182.

domestic race, a small albino variety is frequently bred in cages, in different parts of India, *with wings measuring* $5\frac{1}{2}$ *to 6 inches*; but its form of tail and other proportions are as in *T. risorius* and *T. vinaceus*. This bird is often interbred with the cream-coloured race, producing offspring of intermediate size and shade of colouring." I have seen birds of this kind, under the name of White Persian Doves, and believe them to be specifically distinct, and of considerable ornithological interest. The black collar is entirely obliterated: in the White Turkey, it should be remembered, the breast-tuft *remains* black. The circumstance of interbreeding is not, just now, of much force either way.

At the Regent's Park Zoological Gardens, in 1848, were two strange hybrids between the Passenger Pigeon of North America and the Collared Turtle of North Africa. In outline and proportion they most resembled the former parent, in size they not much exceeded the latter progenitor. They certainly were handsome creatures, without any look of being artificial or unnatural. But they were both males: and the object then was to obtain a female or two from the same cross, and so found a new species, *Quod erit demonstrandum*. It is odd that, in such interminglings of what the Creator sent forth pure and sincere, the result, if any, should almost always be males; the female chicks, we may suppose, having too feeble a hold on life to come into actual existence or prolonged vitality, and the males being mostly useless for further increase of their kind.

A wide distinction between the Pigeons and the Turtles is indicated by the time of incubation of our present bird being only fifteen days from the laying of

the first egg. The eggs, too, are laid on consecutive days. It is desirable that the comparison should be extended to other Columbidae that have bred in this country; and though few of them will submit to the examination, their eggs might be transferred to more manageable Pigeons or Turtles. The growth of the chick of the Collared Turtle is even more rapid at first than in Pigeons; afterwards it proceeds at a slower pace. The little thing is hatched blind, and weak, and covered with fawn-coloured down. On the fourth day its eyes are partially open, and feather stumps begin to appear on the wings. Both the parents will sometimes be on the nest, and strive which can administer food the fastest. In five days more it is pretty well covered with feathers, and begins to squeak.

The Doves and the Pigeons have been associated with earliest history as the companions of our race, and have borne the emblematic character of peace ever since. The first was—

“The surer messenger,
A Dove, sent forth, once and again, to spy
Green tree, or ground, whereon his foot may light,
The second time returning, in his bill
An olive leaf he brings, pacific sign.”

The most modern remarkable instance is to be read in the newspapers for August, 1849, when, on the occasion of the Queen's visit to Dublin, as the procession passed under an arch at Eccles Street, a Dove was lowered from a window into the Royal carriage, which her Majesty took gently in her hand, and placed beside her, amid loud cheers from the vast multitude assembled at this point. It was an Irish mistake to offer a Dove

to such a visitor. A spinster Turtle might have pleased Elizabeth; a loving pair ought to have been presented to Victoria. But, in any way, it is acceptable as a peace offering, if the token be but sincere. One only hopes that the Dublin Dove may not prove the offspring of that faithless breed which is hatched in the celebrated Groves of Blarney.

CHAPTER VI.

PIGEONS NOT CAPABLE OF TRUE DOMESTICATION.

The Stockdove.—Natural instincts.—The Ring Dove.—Mischiefs done by.—The Turtle Dove.—Peculiarities.—Australian Pigeons.—Whether domesticable.—The Wonga-Wonga.—Claims to notice.—Mr. Gould's opinion.—Bronze-winged Pigeons.—Native habits.—Water guides.—Temminck's account.—Plumage.—Interest of Australian Pigeons.—Have bred in confinement.—Captain Sturt's accounts.—Abstinence from water.—Aid in extremities.—Ventriloquist Pigeon.—*Geopelia tranquillæ*.—Harlequin Bronze-wing.—First discovery.—Food and habits.—Their doings at Knowsley.—Graceful Ground Dove.—Minute birds and beasts of Australia.—Mr. Gould's account.—Crested Australian Pigeons.—Their breeding at Knowsley.—Habits in captivity.—The Passenger Pigeon.—Disposition.—Escaped birds.—The Long-tailed Senegal Dove.—Their song.—Synonyms.—Aviary management.

HERE we have a wide field, from which only a few gleanings can be gathered in illustration of our main subject, which the reader will perceive to be "*Birds in their relation to human society.*" The precedence in these notices shall be given to the Pigeons of our own Island.

The STOCK DOVE (*C. Œnas*) makes a very elegant and pleasing aviary bird. Its plumage is rich, bluish gray being the prevalent hue; and the changing colours of the neck are more gemlike than those of common Pigeons. Taken from the nest when young, it is easily reared, and becomes as familiar and *apparently* as much attached to home as the other sorts usually kept. But as the birds get older, a pining for the woods comes over them; they make excursions to the neighbouring groves, returning less and less frequently to the place where they have been nurtured and are still supplied with food by man, till at last they are utterly fascinated by

the delights of sylvan freedom, and become followers of Robin Hood and other forest-haunting outlaws: not that they love man less, but that they love the woods more. If, therefore, they are to be retained in captivity, an aviary must ever be their prison; unless it be preferred that they should go at large in a still more sorrowful condition, with a clipped wing or a shortened pinion*.

The RING DOVE (*C. Palumbus*) is a much larger bird, of perhaps still more beautiful plumage, which is too well known to be particularized here. It is, however, less docile, and more difficult to rear. The best way to procure them for the aviary is to get from the nest three-quarter grown squabs, and feed them, *by mouth*, with peas and water. They are too large to be easily brought up by domestic Pigeons as foster-parents. "I have been consoling myself," writes a friend, "for bad success with chickens, by rearing Wild Ducks and Wood Pigeons. The former do well at present, and are amusing little creatures, not very wild either; the latter I have in two instances hatched under my pigeons, and for one week they have tended them well; but, after that, finding out, I suppose, the trick put upon them, they have deserted their foster-children. The result of this experiment is not yet conclusive, and may, after all, be a mere accident. If I can get eggs easily, I shall probably try again, taking care to put them under a different pair from either of the others. The Ring Dove is a very great ornament to our dark fir woods and cedars, and will frequently build in some beeches close to where the domestic birds are housed; of which, however, they never take the slightest notice."—*H. H.*

* "A neighbour here kept a Stockdove and a Blue Rock together in vain for a long time."—*D. L.*, Keswick, Cumberland.

Ring Doves are irregularly migratory, sometimes appearing in large flocks, the numbers composing which seem incredible when estimated. They commit great havoc on the new-sown grain and the buds of the young clover plant; they also eat great quantities of mast and the seeds of noxious weeds. Rewards have been offered in Scotland for their destruction, with the view of keeping them down; but this is of little use unless at the same time a tall net, over which they could not fly, could be stretched somewhere, as a colossal fence, between Norway and our eastern coast. The best means of reducing their numbers is to publish their excellence for the table at the times when they do not feed upon turnips. Then they punish the farmer indeed, pecking holes in the bulbs for the frost and wet to work upon. The young birds would be acceptable in London in the height of the fashionable season; but *then* no game-keeper will allow a gun to be fired in his preserves, lest more valuable prey should be driven into the next parish.

The TURTLE DOVE (*C. Turtur*) is a very pretty, very untrustworthy little creature, less known than the preceding. When reared from the nest, it becomes tame enough to be even an interesting cage bird; but a pair thus educated, and seemingly contented, in a greenhouse, slipped out cunningly, and were never heard of again. Perhaps, by the time their flight was discovered, they had got half way to Africa; for the very best part only of the year will suit them with us. They adopt the family habits of drinking deeply at a draught, and tickling each other's heads. The coo might be mistaken for the croaking of a frog or toad. When heard close at hand, it has a sort of burring, bubbling sound, and

consists of two syllables or measures, the second being reduplicated, and the whole accented like the words, "Ah! Mamma!" The Turtle Dove is much the smallest of our native Columbidae. The plumage may be generally described as ashy brown: the spot on the side of the neck, and the white tips to the tail feathers, are the most ornamental points of it. In the spots on the neck trifling variations occur, which may safely be referred to age. In Shropshire, this bird is believed to be found nowhere else except about the Wrekin, and hence is claimed by them as the Wrekin Dove; but the species has a most extensive geographical range. Such exclusive possession of the Turtle Dove is no more a fact than that the Wrekin is Mount Ida, or that the Shropshire gentry dwell on the top of it to represent the gods and goddesses.

Curiosity and hope next lead us to glance at Australia, to ascertain whether any of the numerous members of the Pigeon family found on that vast island be, by possibility, attachable to our own family circle. Five species only of Pigeons (for the Passenger is hardly admissible, and *affinis* not yet acknowledged) are found in Europe*; the Ring Dove, the Stock Dove, the Rock Dove, the Common Turtle, and the Collared Turtle; the latter being merely an occasional visitant. One of these has been domesticated, and another tamed and all but domesticated, from time immemorial. It will look like an unusual exception to the doctrine of chances, if, among the small number of five, out of the

* The *Turtur Senegalensis*, however, is recognised as a European species, and has been found abundantly in Greece. (Ann. Nat. Hist. vol. 18, p. 13).

long entire list of Columbidae, we should happen to possess in this island the sole species of the family which is capable of domestication. Twenty-one species are already described by Mr. Gould in Australia alone, and it is not too much to say that not one of them has yet had a trial for a few (of their) successive generations.

The nearer any creatures are to attaining the faculty of domesticability, without actually arriving at the required docility of disposition, the more disappointing and provoking are they to the baffled experimenter. New species, and from new countries, afford matter for speculative trial, which becomes the more hopeful as the subject of it approaches nearer to races which have already submitted to our sway. The Collared Turtle, with a little more love of home, and a little more personal affection, would be as securely our dependent vassal as the Fantail and the Tumbler. How exciting if there be any likelihood of success with the Australian Pigeons! It will surely be acknowledged that these newly-discovered creatures deserve to be fairly tested, species by species, (to see what is *in them*, not what we can make of them,) to secure the chance that, amidst the multitude of blanks for the poultry-yard, some grand prize, like the Turkey from America, may unexpectedly turn up.

It will be remarkable, indeed, if, after every patient endeavour, among all the Pigeons, the *C. livia* and its reputed descendants are the only truly domesticable species. It will be an apt comment on the great things man is to do, the domestic races he is even *to create!* It will be a broad hint, as good nearly as the admonition of an ever-present Prophet, could we but understand it

as such, that there does exist a Power who formed his own rules of action without consulting us ; who was in the act of creating, ordering, and providing, while we, as yet, were utterly nought ; and whose influence will continue to govern the Universe long after our amazing powers have ceased to act upon it.

If we cannot mould the lower animals, is it *more* likely that we should be able to modify the inborn instincts of *our fellow-creatures*, by using ever so much perseverance and assiduity, after a fair experiment has been made that they *do* run counter to our views ? Or is it wiser that we should be content with things as we find them, and take others as they are, ruling *our own* hearts with diligence, as far as assistance shall be given us to exercise self-government, under the belief that all our strongest forces are but feeble ; and that the forces in antagonism to them are either energized or permitted by the One Great Fountain of Might ?

None of the Australian Pigeons have as yet been actually domesticated, and we will begin with that which best promises to be domesticable ; and, for this object, Mr. Gould has liberally allowed us to transcribe from his “ Birds of Australia ”—a book accessible to but few—some interesting passages relating to the WONGA-WONGA PIGEON, the *Leucosarcia picata* of his nomenclature (λευκός, white, and σὰρξ, flesh), the *Columba picata* of Dr. Latham : *picata* being Latin for “ besmeared with pitch,” in allusion to the black-patched plumage of the bird. “ The Pigeon,” he observes, “ forming the subject of the present memoir must always be an object of more than ordinary interest, since, independently of its attractive plumage, it is a

great delicacy for the table ; its large size and the whiteness of its flesh rendering it in this respect second to no other member of its family, the one at all approximate to it being the *Geophaps scripta*. It is to be regretted that a bird possessing so many qualifications as the present species should not be generally dispersed over the country ; but such is not the case. To look for it on the plains, or in any of the open hilly parts, would be useless ; no other districts than the brushes which stretch along the line of coast of New South Wales, or those clothing the sides of the hills, are favoured with its presence : its distribution, therefore, over Australia depends mainly upon whether the surface of the country be or be not clothed with that rich character of vegetation common to the south-eastern portion of the continent. As the length of its tarsi would lead one to expect, the Wonga-wonga spends most of its time on the ground, where it feeds upon the seeds and stones of the fallen fruits of the towering trees under whose shade it dwells, seldom exposing itself to the rays of the sun, or seeking the open parts of the forest. While traversing these arboreal solitudes, one is frequently startled by the sudden rising of the Wonga-wonga, the noise of whose wings is quite equal to, and not very different from, that made by a Pheasant. Its flight is not of long duration, this power being merely employed to remove it to a sufficient distance to avoid detection by again descending to the ground, or mounting to the branch of a neighbouring tree. Of the nidification of this valuable bird I could gain no precise information. *It is a species that bears confinement well, and, with an ordinary degree of attention, may doubtless be rendered domesticated and useful.* The sexes present no external

difference in the markings of their plumage, but the female is somewhat inferior to the male in size."*

The sentence in italics is the one which has caused the introduction of the whole passage here. The Wonga-wonga, there is every reason to believe, has been in this country alive: any one who may chance to possess it should be told what hopes are entertained of its capabilities; but, at present, no account of its being naturalized or domesticated has reached me.

THE BRONZE-WINGED PIGEONS.—The *Columbidæ*, or entire family of Pigeons, containing a great number of known, and probably not a few still undescribed species, have been divided into several genera by modern naturalists. One of these, *Columba*, includes our common Dovehouse and Domestic Pigeons; another, *Peristera* of Swainson, *Phaps* of Gould, takes in the subjects at present under consideration. The Bronze-wings follow next to the *Leucosarcia* in interest; which, however, arises from totally different considerations. No hope of domestication can be admitted here, even if it were allowable for others. According to Mr. Gould's opinion, with which he has kindly favoured me, "Of all the Australian Pigeons, the Bronze-wings are the species most likely to become *naturalized* in this country. Not that I think this can ever be accomplished; the climate being so different, and the habits of the birds totally unadapted for a country so highly cultivated as England. They love to dwell on the most sterile plains, where they feed almost exclusively on grass-seeds*, and

* See vol. v. pl. 63.

† The food of the genus *Phaps* is thus described in Dr. Leichhardt's Expedition to Port Essington:—"The Bronze-winged Pigeon lived here on the red fruit of *Rhagodia*, and the black berries of a species

whence, on the approach of evening, they wing their way, with arrow-like swiftness, to the water-holes many miles distant, for a supply of that element so essential to life; besides which, they are nearly all strictly migratory birds. Still, any attempt to introduce them would be most praiseworthy; but I fear that their habits would not become sufficiently modified to render it successful."

The same high authority, in his valuable "Introduction to the Birds of Australia," (which he has printed for the use of his scientific friends, and which is particularly acceptable to those who have no opportunity of access to the costly folio edition,) speaking of the Bronze-wings generally, states that the members of this genus "not only form an excellent viand for the settlers, but one of the greatest boons bestowed upon the explorer, since they not only furnish him with a supply of nutritious food, but direct him by their straight and arrow-like evening flight, to the situations where he may find water—that element without which man cannot exist." He has styled the genus *Phaps* (Φᾶψ, palumbus, avis), adopting the designation first given by Mr. Selby, and mentions three species, *chalcoptera*, *elegans*, and *histrionica*.

Africa has her Honey-guide, and Australia may boast her Water-witch. The Bronze-wing is the friendly

of Jasmine; and seems also to pick occasionally the seed vessel of a *Ruellia*, which is very frequent on all the flats of Comet Creek." p. 88. "Shot some Bronze-winged Pigeons; in the crop of one I found a small *Helix* with a long spire—a form I do not remember ever having seen before in the colony." p. 99. "Large flocks of *Peristera* (*Phaps*) *histrionica*, the Harlequin Pigeon, were lying on the patches of burnt grass on the plains; they feed on the brown seeds of a grass which annoyed us very much by getting into our stockings, trowsers, and blankets." p. 297.

indicator of waters in the wilderness. Let us listen to the story of one who thus found aid in his extremity :—

“As the sun declined, we got into open forest ground, and travelled forwards in momentary expectation, from appearances, of coming in sight of water; but we were obliged to pull up at sunset on the outskirts of a larger plain without having our expectation realized. The day had been extremely warm, and our animals were as thirsty as ourselves. Hope never forsakes the human breast; and thence it was that, after we had secured the horses, we began to wander round our lonely bivouac. It was almost dark, when one of my men came to inform me that he had found a small puddle of water, *to which he had been led by a Pigeon**. It was, indeed, small enough, probably the remains of a passing shower; it was, however, sufficient for our necessities, and I thanked Providence for its bounty to us.”†

Temminck's description of the Bronze-wing is most inviting. It is one of the most beautiful Pigeons known to him. “Brilliant specks, of a radiant lustre, are sprinkled on the wings of this bird, whose plumage, generally of a uniform colour on the rest of the body, aids still more to relieve the dazzling richness of these spots, which shine like so many rubies, sapphires, and opal stones.

“Captain Philip, in his voyage to New South Wales, and Surgeon-General White, in his voyage to Port Jackson, make mention of this Pigeon: Labillardière, who also killed it in New Holland, had already found it at Diemen's Cape: the naturalists who accompanied

* In the maps, the name of “Pigeon Ponds,” given to welcome pools of water, still marks the mode of their first discovery.

† Sturt's Expedition into South Australia.

Captain Baudin brought home two individuals killed at the Canal d'Entrecasteaux. The species appears in general very abundant in all parts of the Pacific Ocean; they are found at Norfolk Island, in different parts of New Holland, and are especially very common in the environs of Sidney Cove and the *Baie Botanique*."

Here, then, is a bird, which flits before the eyes of our fellow-subjects and blood-relations at the antipodes; which must have engaged the attention, and doubtless often diverted the sad remorseful thoughts, of the convict; which excited the curiosity, and satisfied the cravings after fresh meat, of such men as Sir Joseph Banks and Captain Cook. When we see it caged in our presence, and trimming its glittering epaulettes in the sun, we cannot look upon it with indifference—without some wish that it could be made to dwell, unrestrained, in our Dovecotes, and afford matter of instruction to our children, by the innumerable associations and lessons connected with its history.

Temminck continues, "The Lumachelle (whence comes this name?) Pigeons delight in sandy and arid places: they love to remain on the ground or on low branches; at the *Baie Botanique* they are only seen from the end of September till February (the spring there). They always appear in pairs; they usually make their nests in the holes of trees at a slight distance from the ground, often on the ground itself, and lay two white eggs; their principal food is a small fruit resembling a cherry: the kernels of this fruit are always found in their gizzard. It is easy to make sure of their place of retreat, for their very sonorous cooing, at a certain distance, resembles the lowing of cows. The natives of New Holland designate the Lumachelle

by the name of *Goad-Gang*; the English call it *Ground-Pigeon*, which signifies Pigeon de terre. (Perhaps this may be a confusion of species.)

“The adult male is fifteen inches and a half from the point of the bill to the extremity of the tail: the forehead is pure white, and is softly shaded into light rose colour; this becomes more violaceous in approaching the occiput, and forms, in passing over the eyes, a sort of horse-shoe. The orifices of the ears are covered with small white feathers. The prevailing colour on the upper parts is an ashy brown; each feather is margined with earthy yellow. The greater wing coverts have towards their extremity a spot of radiant brightness. The glancing reflections of the ruby and the opal shine only in emulation of these feathers, which, by their re-union, when the wing is in a state of rest, form two transverse bands over this part; these feathers are tipped with a lovely pearly white. The small and middle coverts have also these same brilliant spots, more or less irregularly distributed; they are tipped with yellowish grey. On the secondary quills of the wings are large circles (*miroirs*) of purplish green. The tail is composed of eighteen ash-coloured feathers, with a black stripe towards their extremity; the two middle feathers are the colour of the body; the under part of the tail is also ashy grey, but all the feathers are traversed by a brown bar. The lower parts of the body are grey, with vinous tints on the breast. The inner part of the wings is rusty rufous; the bill is blackish, but its base is reddish; the feet are red.

“The female has no white on her forehead; all the head is ashy grey: this colour prevails over the other parts of the bird, but the tints are in general less clear

than in the male; the edges of all the feathers are yellowish white; their radiance does not approach that of the ruby, but the reflections are rather of a metallic green. The circles (*miroirs*) on the secondary feathers are also smaller and duller.

“The young *Lumachelles* have their plumage of a blackish ash colour, and all the feathers are margined with umber brown. The forehead and throat are whitish, and the circles are of a sombre hue, with slightly-greenish reflections.”

In these birds, the rich metallic lights which adorn the necks of our Pigeons seem transferred to the wings.

The Australian Pigeons are specially interesting, inasmuch as their history, from the first acquaintance of civilized man with them, is likely to remain ever accessible to future naturalists, and so will hereafter furnish a record of what modifications, if any, captivity and domestication are able to effect in their outward appearance and inward disposition. They have not yet all been brought alive to this country; but every fresh ship-arrival may obviate that cause of ignorance here, respecting their capabilities. It is in England, probably, that their domesticability, and readiness to breed in confinement, will be really tested, as has been the case with the Black Swan and the *Cereopsis*; for the colonists are too glad to depend upon the domestic creatures of the Old World, and have too much heavy work—such as searching for mines into the bowels of the earth, and tracing the vast extent of horrible burning deserts—to bestow, as yet, much pains on the wild indigenous creatures of the land. That is a task which requires more leisure, ease, and wealth, than ought to be possessed by the subduers of a virgin wilderness.

It is unnecessary to remark how much Australia owes to the Old World on the score of live stock. Captain Sturt even suggests, with great reasonableness, that the camel may yet be found available for exploring the deserts of the interior, and deciding the question of the inland sea. [We may wonder, half seriously, why some bold adventurer has not risked a balloon-ascent for the sake of a good bird's-eye view into the untrodden solitudes.] For the main sources of their agricultural wealth—cattle and sheep, the Australians are indebted to Europeans: we should like, if such be in the order of things, to get something back from them in return. The Black Swan seems likely to become naturalized, if not as a useful, at least as a very pleasing, denizen of British park scenery. The indigenous truly gallinaceous birds are strangely scanty in number; and others, very nearly allied to them, are of such peculiar habits (not incubating their own eggs, but burying them in large mounds to be hatched), that it is not easy to suppose how they could be managed in domestication. We therefore turn to the Columbidae with some degree of hope and interest; convinced, however, that the rank as domesticable creatures which they shall be found to fall into, after three or four generations bred under the superintendence of man, will be ultimately the place they are destined by Providence to occupy in the scale of creation.

Some of this family, as the Crested Marsh Pigeon, and the common Bronze-wing, have already bred in confinement; the lovely little *Geopelia cuneata*, when imported more numerous or bred here, so as to be lower in price, is sure to become a general favourite. These may be fairly expected to arrive at least at the

position of the Collared Turtle ; it remains to be proved whether the Wonga-wonga, Mr. Gould's special protégée, will turn out as manageable as he anticipates.

The migratory habits of the Australian Pigeons are an apparent bar to their domestication ; but, in truth, they have no choice, except to migrate. In the interior deserts, nearly all the birds are compelled to change their ground, as the terrific summer advances ; and no great wonder ! The wonder would be if they did not migrate. Captain Sturt—who, during his all but successful attempt to reach the central point of the continent, found himself locked up, by despair of procuring water, in the desolate and heated region into which he had penetrated, as effectually as if he had wintered at the Pole—after a time was deserted by the feathered tribes. Pigeons, Bitterns, Cockatoos, and other birds, all passed away simultaneously in a single day ; and well they might. Captain Sturt naturally envied the Cockatoos their power of wing, to explore a way for his party to escape from the horrors amidst which they were pent. Stones that had lain in the sun were with difficulty held in the hand : the men could not always keep their feet within the glowing stirrups : if a match fell to the ground it ignited, and the earth was thoroughly heated to the depth of three or four feet ; writing was a laborious task, for the lead had dropped out of their pencils, and the ink dried so rapidly in their pens that there was no time to linger over choice of phrase : their hair ceased to grow, and their nails were as brittle as glass : the atmosphere on some occasions was so rarified, that they felt a difficulty in breathing, and a burning sensation on the crown of the head, as if a hot iron had been there : they were obliged to bury their wax

candles to keep them from melting away : they planted seeds in the bed of the creek, but the sun burnt them to cinders the moment they appeared above the ground : at three o'clock one afternoon the mercury in a thermometer fixed behind a tree about five feet from the ground, was standing at 132° ; on removing it into the sun it rose to 157° ! [and yet *we* complain, if we fall in with the cool temperature of 80° :] a thermometer, graduated only to 127° , was placed in the fork of a tree, sheltered alike from the wind and the sun, the mercury being then up to 125° ; an hour afterwards its further expansion had burst the bulb of the instrument. In the midst of this fiery furnace, the intense and oppressive heat of which Captain Sturt cannot find language to describe, a few native savages contrive to exist by shifting about from creek to mud-pool; and here also the Crested Pigeon delights to dwell. "In riding amongst some rocky ground, we shot a new and beautiful little Pigeon, with a long crest (*Geophaps plumifera*). The habits of this bird were very singular, for it never perched on the trees, but on the highest and most exposed rocks, in what must have been an intense heat: its flight was short, like that of a Quail, and it ran in the same manner through the grass when feeding in the evening."

We shall notice the faculty which certain Australian Kingfishers possess of living without water to drink; a similar power of abstinence is to a degree enjoyed (shall we say?) by other inhabitants of the same terrible wastes, for which the words arid, desert, inhospitable, are far too feeble epithets. The Talpero, *Hapaptolis Mitchelii*, an animal with many of the habits of our rabbit, but not much larger than a mouse, must live

for many months together without water, feeding on the tender shoots of plants; and the Bronze-wing and Harlequin Pigeon, *Phaps chalcoptera* and *histrionica*, just take an evening sip of the muddy pool they have flown so far to taste, and are off again to their parching haunts, after having only just wetted their bill. Captain Sturt remarks, "It is astonishing, indeed, that so small a quantity as a bare mouthful, should be sufficient to quench their thirst in the burning deserts they inhabit."

It is quite impossible for fireside travellers to more than guess at the joy of expected rescue to life from a horrible death, which the movements of an Australian Pigeon can inspire. Captain Sturt's narrative of such an event is the more touching that it is unaffected. "None of the horses would eat, with the exception of Traveller. The others collected round me as I sat under a tree, with their heads over mine, and my own horse pulled my hat off my head to engage my attention. Poor brute! I would have given much at that moment to have relieved him, but I could not. We were all of us in the same distress, and if we had not ultimately found water, must all have perished together. Finding that they would not eat, we saddled and proceeded onwards. At the head of the valley Traveller fell dead, and I feared every moment that we should lose the colt. We made straight for the spot where we expected to relieve both ourselves and our horses, but the water was gone. Mr. Sturt poked his fingers into the mud and moistened his lips with the water that filled the holes he had made, but that was all. In this situation, and with the apparent certain prospect of losing my own and Mr. Browne's horse, and the colt which was still alive

when the men left him, not more than a mile in the rear, we continued our search for water, but it would have been to no purpose. Suddenly a Pigeon topped the sand-hill—it being the first bird we had seen—a solitary bird; passing us like lightning, it pitched for a moment, and for a moment only, on the plain, about a quarter of a mile from us, and then flew away. It could only have wetted its bill, but Mr. Sturt had marked the spot, and there was water! Perhaps I ought to dwell for a moment on this singular occurrence, but I leave it to make its own impression on the reader's feelings. I was enabled to send back to the colt, and we managed to save him; and as there was a sufficiency of water for our consumption, I determined to give the men a day of rest, and to try if I could find a passage across the desert a little to the eastward of the north.”*

The power of ventriloquism is a faculty that one would hardly expect to find amongst Pigeons. Some of these birds, however, do possess it. Whether it is exercised generally, or on occasions only, does not appear. Those who have kept the common Bronze-wing say that it can throw its voice to a distance, making it sound as if it came from some bird a long way off, though the creature itself is in a cage at one's elbow. In Wilkin-son's "Manual for Emigrants,"† a South Australian night is thus described:—"It was nearly full-moon, and the sky unclouded, every object being seen with distinctness almost to as great a distance as in the daytime. No sound broke the stillness except the distant lowing of cattle, and the unearthly sound made by the Bronze-wing Pigeons."

* Expedition into Central Australia, vol. ii. p. 51.

† Ch. ii. p. 330.

Another species, *Geopelia tranquilla*, one of the tiny Ground-Doves, exercised its talents in puzzling Captain Sturt during his exploring expeditions. He says, " This bird frequents the banks of the Darling and the Murray, but is not so common as the *Geopelia cuneata*. I first heard it on the marshes of the Macquarie, but could not see it. The fact is that it has the power of throwing its voice to a distance, and I mistook it for some time for the note of a large bird on the plains, and sent a man more than once with a gun to shoot it, without success. At last, as Mr. Hume and I were one day sitting under a tree on the Bogan Creek, between the Macquarie and the Darling, we heard the note, and I sent my man Frazer to try once more if he could discover what bird it was, when, on looking up into the tree under which we were sitting, we saw one of these little Doves, and ascertained from the movement of its throat that the sound proceeded from it, although it still fell on our ears as if it had been some large bird upon the plain. I have therefore taken upon me to call it ' Ventriloquist.' "

THE HARLEQUIN BRONZE-WING, *Phaps* (*Peristera* of Gould) *histrionica*, is an extremely beautiful bird, which has lately bred in this country under most paradoxical circumstances, if we were to estimate its degree of hardness from the climate of its native regions. It is an instance, very similar to the Guinea-fowl, that practical zoology is as much an empirical science as practical chemistry ; and that we can form no safe *à priori* conclusions respecting the constitutional powers of any untried living creature. Everything must be tested, both singly and in combination, or by inter-breeding. What zoology will still want, after her list of forms is

complete, is experiment upon experiment with each available species.

The Harlequin Bronze-wing derives its name probably as much from the black mask with which its face is covered, as from the gay colours with which other parts of its person are decorated. Its first discovery is thus recorded :—

“On breaking through a low scrub, we crossed a ridge of sand, on which numerous pine-trees were growing. The day was excessively hot, and the horses in the team suffered much. I therefore desired Morgan to halt, and, with Mr. Browne, rode forward in the hope of finding water, for he had shot a new and beautiful Pigeon, [*Peristera histrionica*,] on the bill of which some moist clay was adhering; wherefore we concluded that he had just been drinking at some shallow, but still unexhausted, puddle of water near us: we were, however, unsuccessful in our search, but crossed pine ridge after pine ridge.

“As we crossed the plains near Flood’s Creek we flushed numerous Pigeons; a pair, indeed, from under almost every bush of rhagodia that we passed. This bird was similar to one Mr. Browne had shot in the pine forest, and this (Dec. 9th) was clearly the breeding season; there were no young birds, *and in most of the nests only one egg*. We should not, however, have encumbered ourselves with any of the young at that time, but looked to a later period for the chance of being able to take some of that beautiful description of Pigeon home with us. The old birds rose like Grouse, and would afford splendid shooting if found in such a situation at any other period than that of incubation; at other times however, as I shall have to inform the

reader, they congregate in vast flocks, and are migratory.

“When Mr. Browne and I were in this neighbourhood before, [near the Depôt, where they were detained six months by the drought,] he had some tolerable sport, shooting the new Pigeon, the flesh of which was most delicious. At that time they were feeding upon the seed of the rice-grass, and were scattered about; but we now (Feb. 8th) found them, as well as many other birds, congregated in vast numbers, preparing to migrate to the north-east, apparently their direct line of migration; they were comparatively wild, so that our only chance of procuring any was when they came to water.”* Another discoverer describes the bird. “The pond here was so much frequented by Pigeons, and a new sort, of elegant form and plumage, was so numerous that five were killed at two shots. The head was jet-black, the neck milk-white, the wings fawn-colour, having the lower feathers of purple. I had no means of preserving a specimen, but I took a drawing of one, by which I find it has been named *Geophaps* (now *Peristera*) *histrionica*.”†

Mr. Gould found the Harlequins under circumstances which proved that they must have made a sudden flight—taking their equally sudden departure—from the glowing hot-bed of the central regions; on which he remarks, “The great length of wing which this bird possesses, admirably adapts it for inhabiting such a country as the far interior is generally imagined to be, since by this means it may readily pass with great ease, and in a short time, over a vast extent of country; this

* Captain Sturt.

† Sir T. Mitchell's Expedition into Tropical Australia, p. 323.

great power of flight is also a highly necessary qualification to enable it to traverse the great distances it is probably often necessitated to do in search of water.

“On dissecting the specimens obtained, I found their crops half-filled with small hard seeds, which they procured from the open plains, but of what kinds I was unable to determine.”*

The reader is now particularly requested to compare in his imagination the burning wastes of which the bird is native, with an account of its doings, of its own free choice, in England. For the details I am indebted to the kindness of the Earl of Derby, and it will be most respectful to his Lordship to give them in his own words.

Sept. 20, 1850.—“I have already told you of the success we have had in breeding the Australian Doves, and that a pair of the Harlequin Bronze-wing had made a nest on the ground in the *open* Pheasantry, *merely under the wired part*, and close to the low front wall; in consequence of which Thompson took the precaution, by way of some protection against rain or other storms, to place a board as a sort of pent-house, or lean-to, from the wall over her, while she was yet sitting. Yet this never disturbed her; but since her couple of young have been hatched, she occasionally amuses herself by changing their place for some reason or other, which she manages by inducing them to flutter along the ground after her to the distance of a foot or two, by which means she has of course now removed them from under the shelter of the board, *and into the open air*, and in consequence I fear they may have sustained

* Birds of Australia.

some damage from the rain of last night, *which for a time was rather heavy*, but as yet I have heard of none such happening. Of this species I have four adults, and this is the second nest made, if I may call it such, for the eggs were laid on the bare grass. Of the first pair of young one died early, and the other is, I should say, full grown, but has not as yet the markings about the head that the old ones have. The second pair, which I saw yesterday, were about half-fledged, but seem to have very little down."

Probably if the squabs had been coddled up in heat, they might not have thriven so well. Still their being reared at all is an extraordinary fact. The temperature of their birth-place at Knowsley would be at least 60° or 70° lower than that in Australia. Who can guess at any creature's powers of endurance, their own included, till they try them? But hardihood is not the universal rule with Pigeons that have been brought up to the bakings of the great Australian oven. One elegant little Dove, our next subject, found by the same explorers in the same heated deserts, can hardly be got through a British winter in a snug cage in a warm room. Let all intending purchasers of such keep their cash in their purses till the spring importation has arrived.

SPECKLED DOVE, or GRACEFUL GROUND-DOVE, *Geopelia cuneata*.—"All that we read or imagine of the softness and innocence of the Dove is realized in this beautiful and delicate little bird. It is very small, and has a general purple plumage approaching to lilac. It has a bright red skin round the eyes, the iris being also red, and its wings are speckled over with delicate white spots. This sweet bird is common on the Murray and the Darling, and was met with in various parts of the

interior, but I do not think that it migrates to the north-west. Two remained with us at the Dépôt in lat. $39^{\circ} 40'$, long. 142° , during a great part of the winter, and on one occasion roosted on my tent ropes near a fire. The note of this Dove is exceedingly plaintive, and is softer, but much resembles the coo of the Turtle-Dove."*

Australia is a land of minute forms of animated nature, and this is one of the most charming. To behold is to admire; to possess is to cherish with the interest called forth by fragile beauty. It is probably quite the smallest existing Pigeon. The same continent also is inhabited by that beautiful little Quail the *Synöicus Chinensis*, which is not larger than a young Guinea-fowl that has just broken the shell. What minute, insect-like things *its* young ones must be! The little Grass Parroquets, not bigger than Larks, are well known: and among quadrupeds, there is the Flying Opossum Mouse, *Acrobates pygmæa*, less than a mouse in size, and with a tail like an Emeu's feather (in fineness, not in doubleness)—a pet calculated to rouse the jealousy of all the American Flying Squirrels, or European Dormice, that were ever fondled in a lady's apron.

Mr. Gould's graphic account both makes us desire the bird, and indicates the diet and position most suitable for it in our aviaries. "Its natural food being the seeds of grasses and leguminous plants, it is observed more frequently on the ground than among trees. I sometimes met with it in small flocks, but more often in pairs or singly. It runs over the ground with a short bobbing motion of the tail, and while feeding is so re-

* Captain Sturt.

markably tame as almost to admit of its being taken by the hand; and if forced to take wing, it merely flies to the nearest trees, and there remains motionless among the branches until it again descends to the ground. I not unfrequently observed it close to the open doors of the huts of the stock-keepers of the interior, who, from its being so constantly before them, regard it with little interest.

“The nest is a frail but beautiful structure, formed of the stalks of a few flowering grasses, crossed and interwoven after the manner of the other Pigeons. It utters a rather singular note, which at times very much resembles the distant crowing of a cock. The eggs are white, and two in number, $\frac{11}{16}$ of an inch long by $\frac{7}{16}$ broad. The sexes, although bearing a general resemblance to each other, may be readily distinguished by the smaller size of the female, by the browner hue of her wing-feathers, and by the spotting of her upper surface not being so numerous or so regular as in the male.”

There are two known crested Pigeons in Australia, belonging to different genera: first, the *GEOPHAPS PLUMIFERA**, one of the very small doves, which we are not aware has been brought alive to this country; the other, *OCYPHAPS LOPHOTES*, or *CRESTED MARSH PIGEON*, has bred both at Knowsley and in the Zoological Society's Gardens. Captain Sturt says, “The locality of this beautiful Pigeon is always near water. It is a bird of

* These pretty little Pigeons had been first observed by Brown in the course of our yesterday's stage, who shot two of them, but they were too much mutilated to make good specimens. We frequently saw them afterwards, but never more than two, four, or six together, running with great rapidity and with elevated crest over the ground, and preferring the shady rocks along the sandy bed of the river.”—*Leichhardt's Expedition to Port Essington*, p. 284.

the depressed interior [parts of the interior of Australia are *below* the level of the sea, reminding us of the Dead Sea, another sterile hollow on the earth's surface], never ascending to higher land, where there are extensive marshes covered with the *Polygonium geranium*. In river valleys, on the flats of which the same bramble grows, the *Ocyphaps lophotes* is sure to be found; but there is no part of the interior over which I have travelled where it is not, and it is very evident that its range is right across the continent from north to south. The general colour of this bird is a light purple or slate colour, and its form and plumage are both much more delicate than that of the Bronze-wing; but it is by no means so fine a bird, its flesh being neither tender nor well-flavoured. It builds in low shrubs in exposed situations, and lays two eggs on so few twigs that it is only surprising how they remain together."

There are several points connected with the breeding of the Marsh Pigeon in England, for the knowledge of which I beg to express my thanks to the Earl of Derby, that well deserve the attention of naturalists.

In the first place, there are several birds, natives of the southern hemisphere, whose *descendants*, as well as themselves, show their constitutions to be excited by the seasonal periods of their original home, though they themselves have for years been inhabitants of the northern half of the world. One of these, as will be seen, is the Emeu; another is the *Ocyphaps lophotes*.

Feb. 12. "I have a few of the Crested Pigeon (of the Marshes) of Australia, a pair of which last season made three nests, and laid therein, but only once reared a young one. A short time since, going into the place where they were, and looking up, I saw something

which appeared like their nest in the top of a tree, and called Thompson's attention to it. He said he had been there in that place the day before I came, and had not then seen anything of the sort; and to-day he has just told me he thinks, but cannot be sure, the female has begun to lay, but he does not like to climb to look, for fear of disturbing them. This is another proof of Australian birds retaining their native habits as to time, and I think a stronger one than the Black Swans', as they seem to breed at all periods."

Their bad success the previous season *might*, I thought, have arisen from their being themselves scarcely adult birds. I have found that, both in Fancy Pigeons and in Collared Turtles, the first pair or two of eggs are generally clear. Domestic Pigeons are more prolific breeders as they advance in years. The cock bird especially becomes more useful and assiduous as a nurse. But his Lordship does not admit this plea.

Feb. 19, 1850. "I am rather led to doubt the solution you suggest, for our birds having laid three times last year and only rearing a single young one (*viz.*, that they were themselves young birds), from the circumstance that another pair in the Regent's Park also nested thrice, and, I believe, did not rear more, *if so many*; and it is hardly likely that *all* the birds obtained that season should be young, and none adult. Their breeding thrice, or rather nesting thrice with us, we can partly account for, as in one instance the nest was disturbed."

This had been previously explained. Nov. 9, 1849. "As to the Australian Doves of which you speak in your letter, I perfectly agree in the opinion that several of them may be ultimately made useful to a certain degree of domesticity. You speak of the *Ocyphaps*

lophotes, which you think you saw here breeding, and in which your recollection is quite correct. But ours is not the only, or perhaps the most successful, instance of the fact. In the Zoological Society's Gardens at the Regent's Park a pair have, as I am told by Mr. Mitchell, bred this last season three different times, and, as I think, they have reared young. In my own Menagerie, where I have two pairs of these birds, both have made nests and laid, but only one pair has *reared* a young one, which is doing very well, and at present is quite equal in size to the parents, though for some time it continued very small. They soon after their arrival formed a nest among the boughs of a fir-tree at one end of the inclosure; but as the female had one of the wings a little injured, so as not to permit her flying quite well, the work did not succeed, and was abandoned. As she recovered, the task was again commenced in the same tree; but, as the wired inclosure in which they were, together with some small Antelopes, was required to be subdivided, although the workmen were carefully kept away from that end, the nest was again deserted after one, if not two, eggs had been laid, and we thought it was the gambolling of the Antelopes that disturbed the birds. A third attempt succeeded. Two eggs were laid, and one was hatched as I have told you, and has never from the first looked back. The other pair did not hatch."

A second remarkable fact is the habit which some captive Pigeons fall into of laying *only one* egg, instead of their usual number, two.

"This season (Feb. 19, 1850) only one egg has been laid by the *Ocyphaps*, and that some days since; so that it remains to be seen whether that is or is not their

proper number. The usual number for this tribe of birds to lay is held generally to be two, but in some species it is said to be limited to one egg only. My man Thompson asserts that he has never known our Passenger Pigeons to have more than one young one in a nest, and I think he has told me that they only lay a single egg. This is in confinement; while Audubon positively speaks of two squabs in the same nest. This seems an odd, and I think unusual, effect of domestication." It is a very natural effect of restraint and imprisonment, of want of sufficient exercise, of incomplete change of diet. Though, if these flighty strangers *can* make themselves comfortable anywhere in Great Britain, they ought to do so at Knowsley.

A few words on two more aviary Pigeons, each the representative of a vast continent, and this chapter must be concluded. The first is the famous PASSENGER bird of North America.

It appears, from the latest accounts, that the enormous flocks in which these birds make their irregular change of locality are gradually diminishing in vastness; and we know, that as men increase wild creatures decrease. The descriptions of Audubon would hereafter be liable to doubt, were they not supported by such strong contemporary evidence. And it becomes interesting to ascertain whether the bird will, in the first place, breed in captivity; and, secondly, whether it can be prevailed on to assume domestic habits. For, though the flesh may nauseate when thrown into the market by tons weight at a time, it may be acceptable if offered in braces and leashes. The first point has been decided some years ago. Audubon tells us, "My noble friend the Earl of Derby has raised a great number of these

birds, and has distributed them freely. It is not, therefore, very surprising that some which have escaped from confinement have been shot; but that this species should naturally have a claim to be admitted into the British Fauna appears to me very doubtful.* As to its domesticability, some hope might seem to be entertained from the following, which I have from Mr. T. S. Woodcock, of St. Mary's Gate, Manchester: "I have seen cart-loads of the Passenger Pigeon brought to New York, as they visit the vicinity in their migrations. This is the only wild species that I have known attempted to be kept tame, and the instance was my own. A straggling flock having passed over New York, one of the birds (perhaps being fatigued) flew so low as to strike a chimney, and fell to the ground, and before it had time to recover itself it was in my possession. I kept it in a cote in the garden, with other Pigeons, and it became tolerably tame, and, I thought, had mated; but, the door being left open, out it flew, and, though it remained in the garden several days, I could not recover it, and its affection for its mate would not reconcile it to voluntary imprisonment." This was really behaving in a much more promising manner than either our Ring Dove or Common Turtle would have done. They would have been off instantly, *sans ceremonie*, without lingering two or three days out of politeness to their hospitable entertainer. For it will be remembered that the mating was only a compulsory union, a complete Hobson's choice of fellowship. My own scaped specimen did not tantalize us so long. For in February, 1849, I had the honour to receive some of

* Ornith. Biog., vol. v. p. 552.

his Lordship's spare stock of these birds. Three pairs arrived here in strong health and beautiful plumage. Audubon's remark is quite correct, that their feathers are separated from the skin with the least touch; and the principals and assistants at Knowsley must be clever fellows to secure the birds in the spacious Pheasantry of which they have the unlimited range, and send them forth with so little damage. In removing the birds from the basket in which they arrived, one, a hen, slipped from my grasp. She dashed off, and went through the window of the room like a cricket ball, making the glass rattle on the gravel outside. Instantly the whole household, not very numerous, ran out of doors, and were gazing at the clouds with stare of various vacancy. I soon discovered, what we might have guessed, that the bird had fallen stunned on the ground; so she might have been retaken; but the interval was too long. On approaching her, she mounted to the top of a spruce fir, sat there gazing around for five or six minutes (I would not allow her to be shot for a specimen), and then darted off like a bullet from a gun—whither, would be agreeable news. At this moment she is probably wandering unshot somewhere between Cringleford Hall and the moon. If any sportsman in these realms is unfortunate enough to bring down a female Passenger Pigeon, I beg to inform him that she is no addition to the British Fauna, but my lawful property!

An odd male, left in solitude by this elopement, was placed in a cage by himself, with the intention of giving him some common hen Pigeon as a companion; but he sulked and died in a few days, before his new associate was introduced to him. A pair of the others were kept for many months in a cage in my living-room. Though

they gradually lost a little of their wildness, they acquired nothing of tameness, much less of domestic attachment. They were of opposite sexes, yet they quarrelled incessantly. They always reminded me of those miserable unions in which it is easier to lead the horse to water than to make him drink. The male was the smaller and weaker bird, and he was perpetually hen-pecked, till he was worried into, not his grave, but the bird-stuffer's glass-case.

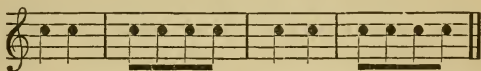
Another pair were transferred to a friend, who wrote thus of them: "The Passengers are well, and exquisitely beautiful; but beyond this, and the curious Grebe-like fashion of resting on their perch, (how they enjoy a sloping one!) there is really nothing to note. They are the most strangely uninteresting birds I ever came across, never uttering a note, or being *seen* to eat, except the hen one day, and which she seemed heartily ashamed of being caught doing. They sit up as if they had a wire drawn through them, and I fear their tempers are not good and trusty."—*H. H.*

Audubon well describes the curious motion of the neck in these birds when they are walking along the ground, and pictures the effect of their wheeling flight when in flocks, the mass now appearing all blue, and then all sunny red. This is caused by the simultaneous exposure to view of the bosoms of the birds, which in the males are of a bright vinous cherry-colour.

THE LONG-TAILED SENEGAL DOVE is equally propagable in an aviary, unmanageable in a cage, and unsusceptible of domestication. A pair liberally sent from Knowsley at the same time with the Passengers, still survive; but though of opposite sexes, they long kept up such fierce engagements, that they were obliged to be

indulged with a separate maintenance. Notwithstanding their native tropical habitat, they seem perfectly hardy here. Lord Derby informs me, "I have on former occasions turned out a few of the Pigeon tribe, which I did not find it convenient to keep in what is called the Old Pheasantry, but I am somewhat discouraged in this proceeding; as, though they have staid in the plantations around where they were released, and have bred and even reared their young in some instances, they have gradually disappeared. What we turned out here were the Passenger Pigeons of America, and the Long-tailed Senegal Pigeons."

The Senegals might very likely be naturalized in England, if poaching naturalists would allow them. In the woods about Knowsley they have been heard, uttering their curious song, which sounds very like the commencement of a negro melody, and may even have given a rythmical hint to the musical Blacks,—



and so on. Two crochets to one bar, and four quavers to the next, in regular succession, all on one note. The learned say that the Doves are nearly allied to the Cuckoos. At any rate the song of many of them admits of quite as precise a notation*.

Our bird is not the *Turtur Senegalensis*, or Neck-laced Turtle Dove, of Blyth, but probably the *Columba vinacea* of Gmelin. There is great confusion in the

* "The coo of *T. risorius* somewhat resembles the sound *cuckoo*, pronounced slowly and with a pause between the syllables, the second being much prolonged and at first rolled."—*Blyth*. See M. Sundevall, in *An. Nat. Hist.*

Latin nomenclature, though little in the English, if the epithet "Long-tailed" be but borne in mind. The valuable "Catalogue of the Knowsley Collection," now in the course of publication for the Earl of Derby, by Mr. Louis Fraser, will doubtless ease our minds of many of these difficulties.

All the Pigeons here mentioned are suitable for the aviary only, except the *Geopelia cuneata*, a pair of which, if the gardener were but good-natured, would thrive best in the dry stove. There seems, however, no reason why a hot-house should not be devoted to the convenience of birds, instead of plants, in a large establishment. For the welfare of foreign Pigeons in an aviary, live turf, calcareous earth, gravel, shell-sand or calcined oyster shells, salt, fresh water, and shallow bathing-places, are desirable. Our ordinary grain and pulse may suffice for their diet, but it should not be forgotten that many of them are vegetable and fruit-eaters; it is wise, therefore, to offer to any little known species that may come to hand, cabbage, swede-turnips, hips, haws, snow-berries, &c., in their season. A shelf screened off in an obscure corner near the roof will sometimes tempt them to breed: a wooden bowl, stuck among the branches of a tree, will give the hint that eggs may be laid there. If I do not err, I saw one of Lord Derby's Australian Doves sitting on a wooden bowl. A few sticks and straws laid about are great inducements to amorous birds to begin furnishing their apartment. Finally, whoever has the taste to amuse his leisure with this kind of relaxation, will also have the tact to know that Nature is the best aviary-guide.

So adieu to the Doves!—But we must have one Dove more!—"PERISTERA JAMAICENSIS. Go in pairs,

feed on the ground, build a coarse nest with two or three cross sticks, *easily domesticated*, excellent for the table." Witness Sir W. Jardine.* If one were sure that the words were used in their strict meaning only, I would soon organise a conspiracy to rob the cleanly and choleric island of Jamaica of a few pairs of her easily domesticable Ground Doves.

* An. Nat. Hist., vol. xx. p. 374.

THE AVIARY.



Chick of Curassow.

CHAPTER I.

THE CRACIDÆ—CURASSOWS.

Want of precise information.—Expected results from the Zoological Society.—Its great advantages.—Disappointments.—Causes thereof.—Erroneous Assumptions.—The limited power of Man.—Domesticability of Cracidæ.—Former attempts.—Natural disposition of the bird.—Imported long ago.—Ill success at the Zoological Gardens.—The Cracidæ at Knowsley.—Arboreal habits.—Of tender constitution.—Curassows at home.—Tame, not domesticated.—Not common in S. America.—M. Ameshoff's *festin d'Heliogabale*.—Eggs.

“THE Correso is a larger Fowl than the Quam; the Cock is black, the Hen is of a dark brown. The Cock has a Crown of black Feathers on his head, and appears

very stately. These live also on Berries, and are very good to eat; but their bones are said to be poisonous; therefore we do either burn or bury them, or throw them into the water, for fear our Dogs should eat them.”*

We do not now believe the bones of the “Correso” to be poisonous, nor take much precaution to keep them out of the way of such dogs as have the chance of eating them; but with really important and even with veritable particulars concerning this bird and the species allied to it, we are very little better acquainted than was the voyager whom we have just quoted. The information at present obtainable in books, or elsewhere, respecting the mere rarity or abundance of curassows in their native country, the degree to which they have been, not tamed, but truly and actually domesticated there, and the amount of success likely to be attained in increasing them as a serviceable stock of poultry in England, is of a most conflicting character. For instance, nothing that can be called even moderate success has hitherto attended the efforts made to propagate them in Great Britain; while in Holland, we are told, one gentleman used occasionally to produce them on his dinner-table. Their flesh is reputed so exquisite a viand, and their manners and appearance are known to be so gentle and engaging, that, although some persons might object to the loudness and harshness of their voice, they ought certainly to be added to our list of profitable live stock, if such an alliance with them can possibly be effected; if it cannot, the actual impossibility of their naturalisation here ought to be proved and publicly announced after being fairly tested, and the causes of it ascertained, in order to prevent well-meaning experi-

* Dampier's Voyages.

mentalists from incurring further expense in useless efforts, and to stop the continued lamentations in agricultural and natural history books that they are not yet generally reared in our farm-yards; which lamentations are to be found in almost every ornithological work which mentions the tribe. The investigation of the difficulty, moreover, whether it shall finally be pronounced to be superable or insuperable, may perhaps establish some principles to guide us in speculating on the probable results of future similar experiments. At the present date, their high price, varying from 6*l.* to 12*l.* the pair, shows that they are anything but vulgar birds, and that a hindrance to their rapid increase on the old continent has hitherto existed in some yet undiscovered cause.

When the Zoological Society of London was established, nearly 30 years ago, it was intended by its projectors to bear the same relation to Zoology as a science, by the introduction of living birds and animals, that the Horticultural does to Botany; and sanguine hopes were naturally and reasonably entertained of its being the means of making numerous and valuable additions to our stock of domesticated creatures. Our preserves were to be made the retreat of unknown game birds; Bustards, Guans, Curassows, and a throng of foreign Ducks and Geese, were to give variety to the poultry yard and luxurious plenty to the larder; Alpacas, Guanacos, and Vicunas were to come in as useful auxiliaries to the sheep farm, and an addition to our flocks and herds; and even one or two new beasts of burden, beautiful as the Zebra, docile as the Horse, agile as the Antelope, and perhaps of half-elephant power in strength, were hoped to be procurable. At

the outset, Sir Stamford Raffles directed his attention more particularly to the scientific department; while Sir Humphrey Davy was to look principally to its practical and immediate utility to the country gentleman and the farmer; and although the Society was too soon deprived by an early death of the great services of both those gentlemen, they have left most able successors. Scientific Zoology has really advanced with rapid strides; but, in spite of every effort, the practical results and available importations have unfortunately been exceedingly few.

It should also be remembered, that the Society has had unprecedented means at command; that it is composed of noblemen and gentlemen of rank, wealth, education, and ability; that similar experiments on the domestication of untried creatures have been concurrently carried on in other establishments—witness the princely menageries of the Earl of Derby and of Sir Robert Heron; that it makes no secret of its proceedings and their results, but with a courtesy and liberality which deserve the fullest acknowledgment, gladly affords every aid to the naturalist who is in true and earnest search after information.

But, notwithstanding all this, it is an undeniable reproach to Ornithology, and, it must be confessed, to Zoology in general, that those sciences, in the literature to which they have as yet given rise, have proved of little service as far as regards any suggestions respecting what we are likely to expect and obtain from comparatively untried birds and animals. Compare them with Botany and Horticulture, and it might be pronounced, in a hasty judgment, that they ought to retire abashed. From Botany and Horticulture we have in recent times derived wholesome and substantial vegeta-

bles ; plentiful, grateful, and luxurious fruits ; forms of delicate and fragile beauty to decorate the mansions of the wealthy patrons of the science ; continual additions to our woods, our shrubberies, our hothouses, our cottage gardens : nay, by the sanative force of herbs, even disease has been arrested, the irritation of incipient insanity allayed, fever mitigated—in short, life prolonged and made more comfortable during its prolongation. What, meanwhile, have Ornithology and Zoology effected to increase our useful store, for the last three hundred years ? We do not say, nothing ; but we dare not say, much more than nothing.

After a very few years', perhaps months' observation, horticulturists will undertake to pronounce whether a new plant be suited or unsuited to exposure in this climate, and what is the best mode of turning it to the greatest use or ornament, under either condition ; and if it cannot be turned to any use, but can be kept for its showy appearance merely, will soon tell us that it is useless, except as a specimen, why it is so, and how it may best be retained in health and beauty. But Ornithology and Zoology have imparted little practical knowledge respecting those creatures about which the poultry-maid, the shepherd, and the herdsman, could not already give us information. Even Agriculture, which requires so heavy a ballast of capital to carry her along steadily on her way—even Agriculture has introduced Turnips, Swedes, Mangold-wurtzel, and other additional crops, within the memory of our fathers and grandfathers ; but Ornithology does not to this day publicly decide, in print at least, whether birds, like those now under consideration, promising truly or falsely to be as valuable as Turkeys and Guinea-fowls, and which have

been kept captive in Europe at least 250 years, are, or are not, easily and profitably propagable in British farm-yards.

The above-mentioned short-comings, and the reason why we cannot yet refer to Zoology for a decided answer as to what creatures, still in a state of nature, may be reckoned upon as hereafter reclaimable for the use and service of Man, can be accounted for in two ways.

First. In studying any class of natural phenomena, the mode is, to collect together all the facts, specimens, and reasonings, bearing in any manner upon the subject, which come within the inquirer's reach—in fact, to make an intellectual and a material museum of things pertaining to that department; and then, by careful and persevering inspection and comparison, to discover what they mean, to observe in what theoretical direction they tend, to what conclusions they point and lead the way; and thus, sometimes by patient reasoning and working the problem out, occasionally and rarely by a sudden comprehension of the hidden riddle, to arrive, if not at the very truth itself, at least at a close approximation to it. Now, the science of Zoology is at the present epoch in the exact position of a student accumulating observations, collecting specimens, and comparing theories of natural phenomena; she is as yet but a humble learner and investigator of a most varied and intricate field of knowledge; she is rather in a condition to receive hints and to be thankful for contributions of information, than either to dogmatise boldly, or to lead the way into unknown regions by means of the possession of any unvarying compass of well-ascertained principles for her guidance. “The time has not yet arrived,” Mr. Gould truly remarks, in his magnificent

and admirable “Birds of Australia,” “when a philosophic view of the Ornithology of the world (much less of its entire Zoology) can be achieved; hundreds of species and many forms yet remaining to be discovered, without a knowledge of which any general arrangement must necessarily be most imperfect. [If this be true of the mere bodily organs of the creatures that are to be studied, with what increased force is it applicable to their habits, disposition, and capabilities!] I am not speaking in disparagement of the attempts at classification that have hitherto been made, all and each of which has its own individual merits. We are in truth merely the pioneers preceding the great master mind, which will doubtlessly arise at some future period, endowed with the capacity requisite for the classification of the immense mass of materials we at present possess, and with which future researches will make us acquainted.”*

A second cause why the practical results of Zoology appear to be so far from commensurate even to the degree of perfection already attained by its system of classification, is, that erroneous principles—such at least we humbly believe them to be—have often been assumed; and that it has been taken for granted that the attainment of certain ends *are* within the scope of human control and direction (such as changing the innate disposition and natural constitution of animals), which lie in reality utterly beyond and above our influence. We repeatedly make the attempt to arrive at useful results by following up this deceptive anticipation, and, as a matter of course, we repeatedly fail. What success has attended the establishment of the Camel on

* Notice to the Introduction.

the plains of Tuscany? Has it been as thrifty and useful as in its native desert, or has the race barely been propagated and kept going on as a curiosity and a show? Similar questions might be asked respecting numerous other creatures. We would be extremely cautious in depending too much on any analogy derived from plants, but, we may ask, which tender herb from South America have we succeeded in rendering hardy, capable of enduring our damps and frosts? Can we as yet even say that we have completely and thoroughly acclimated the Potato?

It is also apt to be assumed, without the least supporting proof given, that Man is the originator, or, as some writers rather profanely word it, the creator, of numerous domesticated races, whose companionship is almost necessary to his comfort, sometimes even to his existence; and it is argued from these, to say the least, questionable premises, that as we have done so much for ourselves already, we can continue to go on and do more; as we have made the Dog, the Sheep, the Pigeon, and the Fowl what they are, we can of course proceed in our work of reclaiming and creating (alas! what blind and presumptuous worms we are!) new races to any extent; we are not only destined to conquer the world which lies before us, but we are to raise up a new set of animals suitable for future purposes!

We do not wish to exaggerate this point unfairly, but we do wish to exhibit it in the full force with which it is made to bear upon that very important subject—the history of the creatures we now retain, and are likely to reclaim to a domestic state. The same key-note is taken up, with scarcely an instance of wavering, by a whole series of writers on natural history; and the strain is continued with an increasing swell, and re-echoed from

men of deservedly great name and reputation, down to the ranks of the humblest and most parrot-like of their plagiarists. We are constantly meeting with such phrases as the following—"The triumphs of human art and reason over the natural instincts of the inferior animals;" "The reduction, not only of their physical force, but of their mental powers, to human authority;" "It was easy to domesticate the heavy and inactive birds, [in what country do farmers' wives bring fat young Bustards to market?] but those that possessed rapidity of flight required more time and care to subjugate;" &c. &c. &c. It is needless to multiply examples; they will occur to every reader: almost the sole dissentient we remember who hesitates to drift quite so rapidly down this popular current is Colonel Hamilton Smith, in the views he has so temperately and judiciously set forth in his two excellent volumes on the Dog, in the "Naturalist's Library."

We might urge that the power assumed by Man to rule so completely the destinies of his fellow-creatures (though spiritually inferior, yet formed of the same elementary materials and animated by similar mysterious vital forces) is improbable, from the unlikelihood that one creature should exert so vast an influence on the position in creation of other creatures differing so little (except, as we have remarked, spiritually) from himself*; that it is irreligious to boast that we have done

* "What call'st thou solitude? Is not the earth
With various living creatures, and the air
Replenished, and all these at thy command
To come and play before thee? Knowest thou not
Their language and their ways? They also know,
And reason not contemptibly. With these
Find pastime, and bear rule; thy realm is large."

Paradise Lost, book viii., line 369.

and can do so much for ourselves, and are, so far, independent of the beneficent and providential forethought of a higher Power for the gift of the humble companions and inarticulate ministers on earth which add so much to our comfort. We should express the convictions of many, in declaring that the doctrine of the perpetual progression of organic forms, in opposition to their permanency (or, what we believe to be the truth, their slight variation within certain prescribed and impassable limits), if supposed to take place in consequence of an innate power or law working within them of itself, contradicts those principles of natural theology and that belief in an Almighty Benevolent Creator, which are happily all but universally received. We might most easily enlarge upon this topic; but it will be better and more satisfactory to show that history, as far as we can trace it—that experiments and attempts carefully and perseveringly made—and that observations about which there can be no doubt, all tend to contradict, instead of confirming, the theories to which we have alluded.

We will now see what bearing the Cracidæ and their domesticability have upon the subject.

The late Mr. Bennett, in his “Gardens of the Zoological Society Delineated,” an elegant and well-known work, published in 1831, very naturally observes, that, “Of all the gallinaceous birds in the collection, the most interesting are those which hold out to us a prospect of supplying our farm-yards with new breeds of poultry of a superior kind. Such are especially the Curassows. In many parts of South America these birds have long been reclaimed; and it is really surprising, considering the extreme familiarity of their manners, and the facility with which they appear to pass

from a state of nature to the tameness of domestic fowls, that they have not yet been introduced into the poultry-yards of Europe. That, with proper treatment, they would speedily become habituated to the climate, we have no reason to doubt; on the contrary, numerous examples have shown that they thrive well even in its northern parts; and M. Temminck informs us that they have once at least been thoroughly acclimated in Holland, where they were as prolific in their domesticated state as any of our common poultry. The establishment, however, in which this had been effected was broken up by the civil commotions which followed in the train of the French revolution, and all the pains which had been bestowed upon the education of these birds were lost to the world by their sudden and complete dispersion. The task, which had at that time been in some measure accomplished, still remains to be performed; and it may not be too much to expect that the Zoological Society may be successful in perfecting what was then so well begun, and in naturalising the Curassows as completely as our ancestors have done the equally exotic, and, in their wild state, much less familiar, breeds of the Turkey, the Guinea-fowl, and the Peacock. Their introduction would certainly be most desirable, not merely on account of their size and beauty, but also for the whiteness and excellence of their flesh, which is said by those who have eaten it to surpass that of the Guinea-fowl or of the Pheasant in the delicacy of its flavour."

Mr. Swainson, relying mainly (too much, we think, with deference) on the circumstance that the Curassows and Guans are included in the circle of his rasorial types, also expresses a sanguine hope, accompanied by

a reproach for past neglect, that an important addition to our poultry stock is about to become firmly established in this country. "It is singular that so little pains have hitherto been taken to domesticate these American Fowls; since, by their sociability and gentleness, they evince every disposition to live under the dominion of Man. The flesh, as we know from personal experiment, is particularly delicious."

More lately, the author of the article on Poultry in "Knight's Farmer's Library," only just completed, an able writer, and formerly attached to the Zoological Society, who may be considered to give the most recent notice respecting the practicability of domesticating these birds, observes—"It may be deemed wrong in us to enumerate the Curassows among our domestic poultry, and indeed our great object here is to draw attention to them, as most valuable additions to our feathered stock. They are not only readily susceptible of domestication, but they have been domesticated; and on this ground we claim, for certain species at least, a place in the present work."

The Curassows approach to the size of Turkeys and Pea-fowl, and congregate in flocks; the Guans range with our Pheasants in point of magnitude, though rather exceeding them, and go in pairs. When caught young and tamed, they appear to make themselves even more at home than common fowls, being almost as sly, inquisitive, and full of tricks as Monkeys or Parrots. Instead of looking out for any secret place of retirement, they readily make use of whatever accommodation we prepare for them, preferring, if they can, to penetrate into our houses, and even our sitting and sleeping rooms. They live on very friendly terms with other

poultry, much more so than Guinea-fowl do, neither fearing their co-mates, nor yet attempting to tyrannise over them.

Who, then, that has a poultry-yard and its usual appurtenances, can help wishing to introduce therein a few of these most promising and inviting creatures, about which so strong a *primá facie* case has been made out? If we closed our record and description here, many of our readers might perhaps be inclined at once to commence the experiment. Before they do so, we will request their attention to the pleadings on the other side of the Court.

The birds themselves are no novel importation from the western world: a few rare species have of late been brought over-sea for the first time, but those which are recommended as most likely, not merely to live, but to increase in a domesticated state, have been introduced to Europe nearly, perhaps quite, as long as the Turkey, which has been propagated with such ease and rapidity. Aldrovandi (A.D. 1637) gives very recognisable descriptions and figures of both the crested and the galeated Curassows, which were communicated to him by Ferdinand, Grand Duke of Tuscany: he also figures and describes a bird which is undoubtedly a Guan. This, however, and two of his Curassows are represented as tailless, of course from defective specimens. He speaks of them all as Indian Cocks and Hens.

Edwards* figures the Currassow-Bird and the Cushew-Bird (Galeated Curassow) from life. "The Cushew-Bird takes its name from the knob over its bill, which in shape much resembles an American nut called the

* Gleanings of Nat. Hist., part ii. pl. 295.

Cushew. It is the Pauxi of Nieremberg*. Whether this last-described bird be specifically the same with the foregoing, I am at a loss absolutely to determine. I know it is very rare with us in comparison to the Curassow, *which is common in the aviaries of our nobility who are curious in birds.*" His plate is dated 1758; therefore, to go no further back than this notice, here is a period of a hundred years for them to have adapted themselves to a settlement in Great Britain; for if they were common in 1758, we may believe that they had been introduced at least some years before. But they have not, like Turkeys, as yet been dispersed over Europe, nor repaid any attempts that have to the present been made with them in this country. An amateur, who was anxious to give them a trial, applied to Mr. Yarrell to know what success had been attained at the Zoological Gardens; and that gentleman, with his usual kindness, returned the following reply:—

"There are several species of Curassows in the Gardens, but no successful instance of rearing the young. On one occasion a female made a nest in the middle of a thick bush, at about three feet from the ground, laid her two eggs, and sat upon them steadily, but the eggs had not, probably, received the influence of the male, as no chicks were produced. This is the only instance at the Zoological Gardens of a female incubating. They drop their eggs about anywhere. Two eggs were placed under a hen Turkey some seasons since, and two young ones were hatched out, but they were so wild that they would not allow the keeper to come near them, and at length, to avoid him, they ran into the water

* Pages 233-236.

from the island on which they were hatched, and were both drowned. Sir Robert Heron, of Stubton, near Stamford, Lincolnshire, has reared some, but not many."

This was written four or five years ago, but the propagation of Curassows and Guans remains *in statu quo*. In vain have the Society offered prizes to the breeder of the greatest number of Cracidæ: the feathered strangers will bear the voyage across the Atlantic very well, but, when arrived, they cannot be persuaded to found a colony and occupy, by themselves and their descendants, the very comfortable quarters we are so ready to provide for them. They resolutely continue to misquote Byron's lines—

"The prison'd Eagle will not pair, nor I
Obey your acclimating phantasy."

Let not the reader suppose that they have not had every temptation, and opportunity, and means of increasing offered to them, if they would but so far condescend to gratify us. During the summer of 1849, we enjoyed the great privilege of first visiting the unrivalled menagerie at Knowsley. We found the Curassows and Guans lodged in a series of lofty and charming aviaries, open to the air and sunshine, and inclosed only by wire netting, except at the back, which consists of a range of houses to which the birds can retire at pleasure, and which in cold and damp weather are kept at an agreeable temperature. Their inclosures are planted with shrubs and flowers; green turf, varied with clean gravel, covers the ground; a small, clear stream of water is ever flowing through each separate little garden; not cleanliness merely, but the most pleasing neatness is preserved; there is no crowding, no opportunity for

bickering and jealousy; and surely, any other set of domesticable, philo-progenitive birds would be constantly piping, in the exuberance of their contentment—

“ Let us own, if there be an Elysium upon earth,
It is this ! it is this ! ”

Well, Lord Derby's Cracidæ had done not much more than those in London, we believe not quite so much as those at Sir Robert Heron's, which, added altogether, is not a great deal in the way of encouragement to enterprising breeders. One male bird at Knowsley, yielding a little to the fascination of the spot, had prepared for his mate a bower of love. And where does the reader think it was placed? The gallant Curassow had mounted a tall holly-bush, and thereon made a nest about the size and shape of a peck basket, interlacing the twigs, and then lining them with the prickly leaves, which he had cropped, as a comfortable couch for the Hen and her nestlings. The whole thing was an insult to any incubating female, and she treated it with the neglect that such a structure of *chevaux de frises* deserved.

But even if this family of birds *could* be tempted to breed freely with us, under any circumstances, many of their natural habits would be found extremely inconvenient, to say the least. “ It should be remembered,” Mr. Martin truly reminds us, “ that they are *arbooreal* in their habits, and natives of the forest of a hot climate, and consequently should be accommodated, as far as possible, in a manner consistent with their habits and requirements. We have seen Curassows with their toes lost from the effect of cold and wet.” Let your poultry-maid, country reader, when she next turns her eye upon

the rookery at the back of your house, say how she would like the charge of fowls that nested, laid, and hatched in that manner; and when your lady takes your arm for a stroll through the stove and greenhouse, you will hear whether she would consent to turn out the gay things for summer bedding, to make room for the Curassows and Guans, lest their toes should "damp off" like the shoots of Heliotropes and Verbenas. These arrangements and considerations are not at all romancing or imaginary, nor must they be neglected by acclimators of the Cracidæ. The venerable Dr. Neill, of Canonmills, near Edinburgh, who has effected more than most naturalists in inducing a Guan even to lay, thus informs us of the locality in which the interesting event has taken place:—A *Penelope cristata* is kept in a large cage occupying one end of a greenhouse. It is a female, and generally once a year lays two or three eggs, very imperfectly covered with shell."

It is thus clear that they are, in this climate, greenhouse birds during the winter. Mr. Gould is of opinion that they might possibly do out of doors all the year round in Italy; but as their propagation in confinement has failed so completely everywhere in Europe (we do not except the often-quoted instance in Holland), the only chance of naturalising them lies in allowing them (what they are not usually trusted with here) complete liberty during the finer months of the year, and full permission to follow their native habits. What those habits are, and how much nearer they resemble those of a rookery than the hen-house, we are informed by a recent traveller who had penetrated far into the interior of South America:—

"Of Curassows, or Mutuns, we never shot but one

variety, the crested, of which we had found the nest near Serpa. But other species were common about the forests, and these, with others still brought from the upper country, were frequently seen domesticated [read 'tamed']. They are all familiar birds, and readily allow themselves to be caressed. At night they often come into the house to roost, seeming to like the company of the parrots and other birds. They might easily be bred(?) when thus domesticated [tamed], but *the facility with which their nests are found renders this no object at Barra*. They feed upon seeds and fruits, and are considered superior, for the table, to any game of the country." *

He elsewhere relates:—

"As we drew up by the bank for breakfast, a crested Curassow or Mutun, *Crax alector*, flew from the top of a low tree near us, and *one of the Indians darted up for the nest*. There were two eggs, and tying them in his handkerchief, he brought them down in his teeth. These eggs were much larger than a Turkey's egg, white and granulated all over. The crested Curassow is a bird about the size of a small Turkey. The general plumage is black, the belly only being white, and upon its head is a crest of curled feathers. This species has a yellow bill. It is called the Royal Mutun by the Brazilians, and in the vicinity of the river Negro is not uncommon. With several other varieties of its family it is frequently seen (in unprecise language) domesticated, and is a graceful and singularly familiar bird in its habits. According to some authors this bird lays numerous eggs, but each of the three nests which we

* Edwards' Voyage up the Amazon, p. 144.

found during this day contained but two, and the taugh assured us that this was the complement. *The nest was in every case about 15 feet above the ground*, and was composed of good-sized sticks, lined with leaves and small pieces of bark."*

Sonnini says that Curassows, like nearly all the birds in the same country, have no fixed time for laying, but prefer the rainy season, which, in Guiana, lasts six or seven months, to the dry season; that they usually lay but once a year, and take very little trouble about the construction of their nests, making them of a few dry sticks, rudely interwoven with grass, and with a few leaves placed at the bottom. We may imagine them to be very like rooks' nests, only larger. The eggs, he informs us, are about the same size and shape as those of Turkeys, but are white, and have a thicker shell. The number laid varies *according to the age of the females*, which never produce fewer than two, nor more than six. None of these writers appear to have *seen* with their own eyes any poultry-yards actually stocked with *and producing* Curassows: they find them captive and familiar, and describe their condition in language which conveys a false idea. They might as justly speak of domesticated Parrots and Monkeys in England, or even of domesticated Falcons and Herons, because these creatures, when compelled to live in our society, wisely determine to make a virtue of necessity, and settle themselves as comfortably as their new circumstances will permit.

The plumage of Curassows, and perhaps all Cracidæ, seems to change considerably as the birds advance in

* Edwards' Voyage up the Amazon, p. 122.

years. This may afford a clue to the perplexity which has harassed some Ornithologists respecting their numerous species, and the varieties "caused by domestication," according to their theory. This is a fashionable and an easy way of solving a difficulty; but it ought first to be proved, that the Cracidæ are, even in their native country, really domesticated at all.

Mr. Swainson, instead of finding such plenty of Curassows, tells us that, through all the tracts of Brazil and its different provinces which he traversed, solely with a view of collecting its zoological productions, he was not fortunate enough to procure a single specimen of the *Crax alector*, although he sometimes heard of its being occasionally seen by the remote planters located on the verge of the unoccupied tracts. As to this, or any other species, being kept in the poultry-yards of the native Brazilians, he never saw a single reclaimed specimen through a tract of territory which he traversed, extending some hundreds of miles. In Guiana, he adds, these birds have long become so scarce, that in a collection of many hundreds made in that country by Mr. Schomberg, there are not three specimens of the whole genus.

Mr. Darwin, during his voyage with the Beagle, saw nothing of Curassows in South America, except a very few wild ones in the damp islands at the mouth of the Parana. Similar localities are given by Mr. Swainson, from personal observation, as their favourite haunts, namely, thickly-wooded marshes, and the vicinity of water. It is odd that Holland should be the only European country in which they are said to have really thriven.

Temminck, who alone is quoted, often at second-hand,

for the record of this success, certainly does observe that in captivity Curassows are quite as familiar and confiding as Turkeys, Pea-fowl, and Guinea-fowl, and attributes their infecundity in that state to the want of their having received special attention and peculiar treatment; but unfortunately he does not tell us what those *soins particuliers* have been, or ought to be. He instances the success attained in M. Ameshoff's menagerie, but gives no details; and he makes us doubt whether the success was really so *very* great, by calling the dinner at which Curassows were served, *ce festin digne des temps d'Heliofabale*, and informing us that on the same occasion exotic Pheasants, Chinese Mandarin Teal, and Louisiana Ducks, were produced at table, in order to display the magnificence of the menagerie. In short, it was a mere feast of bravado and a vain piece of ostentation, in which any rich man could now more easily indulge than M. Ameshoff, without having *bred* his dainty fowl in such plentiful abundance. The circumstance, too, occurred in Temminck's early childhood, and he speaks from hearsay and distant memory, not from mature observation.

We have now laid before the reader, fairly, we hope, some of the *pros* and *cons* of the claims of the Curassow family upon the patronage of the British poulterer or amateur breeder. We shall next give some details respecting one species, with which we have had a personal trial and experience. It will be for others to sum up the evidence in the end, and decide what encouragement there is for further attempts; but we cannot help entertaining a strong prejudice that the Cracidæ are, like the Parrot tribe, very tameable and docile *as individuals*; but that, in consequence of their refusal to

breed (except so rarely that the exception confirms the rule) in confinement, *the race* never has been and never can be truly domesticated. For, without taking into consideration any unsuitability of climate, it is retained alive in our public and private menageries almost entirely by successive importations from South America; and if the stock could not be renewed from that source, but depended upon its propagation here for a continued existence, it would soon altogether become extinct and unseen in Great Britain.

The eggs of the Cracidæ seem to be large in proportion to the size of the bird, and whitish or light cream-coloured, with a slightly granulated surface. I am indebted to the Earl of Derby for the loan of eggs of the *Crax globicera* and *Yarrellii*. The former measures $9\frac{3}{4}$ inches round its long circumference, and $8\frac{1}{2}$ inches round the middle, being a very short oval: the latter is $7\frac{3}{4}$ inches round lengthwise, and $6\frac{1}{4}$ round the middle.

The Chick figured at the head of this chapter is a Curassow, species not certain.



Eye-browed Guan (Penelope superciliaris).

CHAPTER II.

THE CRACIDÆ—PENELOPES (COMMONLY GUANS).

Difficulty of discriminating the species.—State in which the young are hatched.—Easily tamed.—Produce few young in a tame state.—Mode of distinguishing species.—Organ of voice.—Its efficiency.—The Cracidæ as poultry.—Mr. Bennett's and Mr. Martin's hopes.—Causes of failure.—Have had a fair trial.—Curassow dinner.—Cracidæ in Holland.—Temminck's expectations; plausible but unfounded.—Determine on an experiment.—Unsuitability of South American organisms to Great Britain.—Instances.—Few exceptions.—The reversed seasons of the north and south hemispheres one cause.—Mr. Darwin's account.—Guans at the Surrey Gardens.—Their native habits and diet.—Our own mishaps.—Troublesome tameness of the birds.—Tricks and dangers.—Impudence and capriciousness.—Possible profitableness!—Narrative of a coadjutor.—His ill-success.—Our own.—Habits of the Eye-browed Guan.—Amount of success at Knowsley.

THE genus of birds now under consideration, which is composed of not a few species, and doubtless of more

than are at present recorded and distinguished, is usually known by the term Guan *; this, however, is the specific name of the *Penelope cristata* in Temminck's admirable account of the bodily forms of the tribe, and it would be better and more conducive to precision, to retain *Penelope* as the generic term. We should consequently decide to adopt it as such in the present chapter, did not the length of the word, as well as the previous currency of the shorter term, render it somewhat inconvenient for familiar use. But anything is better than confusion of ideas. The various species of *Penelope* have been the despair and plague of scientific naturalists and skin-merchants, in consequence of the puzzling similarities and gradations in their external appearance. Some writers, adopting an idea which they have inherited from their predecessors, get out of the difficulty, by saying that these slight varieties in plumage and outward form are only the *usual* and *necessary* consequences of domestication, whereas, although the birds are most easily tamed, we cannot find any proof of a score of individuals having been reared in domesticity, either in South America or in Great Britain. The circumstance that some species at least are hatched in a less developed state than other gallinaceous chicks, and remain nestlings as long as ten or twelve days†, ap-

* "The Quam is as big as an ordinary Hen Turkey, of a blackish dun colour; its bill like a Turkey's; it flies about among the Woods; feeds on Berries, and is very good meat."—Mr. Dampier's *Voyages to the Bay of Campeachy*, An. 1676, Vol. ii., Part 2., p. 66.

† "Ces oiseaux construisent leur nid au milieu des arbres bien touffus, et le plus près du tronc qu'ils peuvent, de sorte qu'on a bien de la peine à les découvrir. Lorsque les œufs sont éclos, la mère nourrit les petits dans le nid, jusqu'à ce qu'ils soient un peu grands, et que leurs plumes commencent à sortir; alors, âgés seulement de douze à quinze jours, ils descendent à terre avec leur mère, qui les

pears to have been quite disregarded, although it would be an insuperable objection to making use of the assistance of a hen, or any other stepmother, except another Guan, that we are acquainted with, in hatching their eggs and tending and rearing their young when hatched. The extreme ease with which they are tamed, and the strong and even troublesome attachments which they form to Man, are very remarkable, when coupled with the rarity of their increase in a domesticated state, reminding us in some degree of the Elephant among quadrupeds. The vastness of their native woods secures them from anything like extermination at present; but were the human race to make, by any possibility, serious encroachments upon the principal forests of the Brazils, the whole family of Guans, if dependent on propagation in captivity for its continuation, would probably verge rapidly towards its extinction.

Humboldt and Temminck have pointed out a mode

mène comme nos poules mènent leurs poussins.”—Temminck, Art. Penelope Marail, p. 65.

“The young (Curassows), as we believe, are not in so forward a state, on their exit from the egg, as the young of the ground-breeding *gallinaceæ*.”—Martin, Art. Poultry, p. 567.

These statements are not borne out by observations made in England.

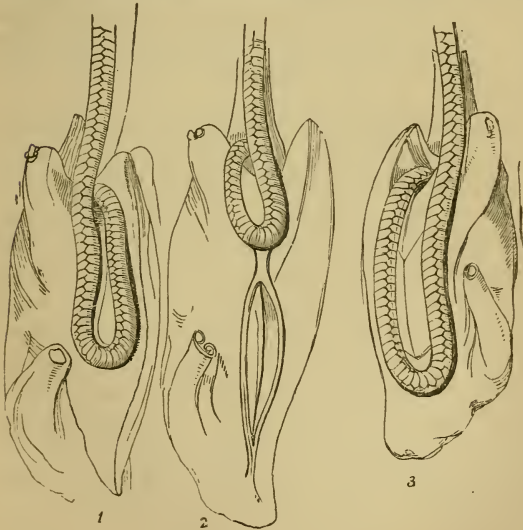
“I can neither confirm nor deny what you state from Temminck as to the young Curassows remaining in their nest ten or twelve days. It certainly has not been so with us, but then in our case the young were not brought out by their own parents, or in a climate which in any way could be compared to their own. Possibly it was otherwise in the cases alluded to by Professor Temminck. I can only say that here I am not aware of any difference from the habits of other gallinaceous birds, except their disinclination to creep under their nurse like other chicks. I do not recollect even that the young seem to look to their nurse’s bill for their food as the young Landrails do at first, and as they surely would if it was the natural custom of the tribe to be so fed.”—E. of D.

of distinguishing the species of this genus, similar to that which has been so successfully applied by our distinguished countryman Yarrell to the Swans; namely, by observing the very remarkable windings of the windpipe in each. A reference to this criterion, when possible, is found to relieve the bewildered naturalist from uncertainties into which the little dissimilarity of the outward appearances betray him.* In the *Penelopes*, the windpipe, before entering the cavity of the body and communicating with the lungs, makes various circuits on the surface of the muscular part of the breast, between the skin and the flesh. These circuits are constantly formed on the same plan in the same species, as far as opportunities have yet occurred of observing their comparative anatomy; and it is very curious, on skinning a bird, to find the windpipe meandering on the outside of the flesh, looking almost as if the internal organs had been protruded or ruptured by accidental violence. But so far from this being a defect or an infirmity, we find that some of the arrangements and contrivances, by means of ligaments, tissue, &c., to prevent any displacement of the windpipe from its intended position (for instance, those in the *Penelope marail*, and in the *Penelope parrakoua*), are beautiful examples of design, and are worthy of quotation in any future work on Natural Theology. The consequence of this long and externally-winding trachea is a voice of great variety

* "J'invite les naturalistes, à ne point décider trop légèrement sur l'apparent identité des espèces, qui composent le genre Pénélope; je m'y suis souvent abusé, avant d'avoir bien saisi les caractères qui distinguent ces espèces, dont le plumage n'offre que peu ou point de dissemblance; et chez lesquelles, les caractères qui tiennent aux formes entérieures, sont très-peu apparents."—*Temminck*.

and power. The animal is provided with a natural French horn, on which it can perform the most extraordinary music, and with a pocket speaking-trumpet, which will make itself heard at no little distance.

Thus a recent traveller writes—"The Paraguay Guan, *Phasianus Parraqua*, was common, but not domesticated. It resembled the Mutuns in its habits, but in form had a larger neck and tail in proportion. A specimen which we shot exhibited a very curious formation of the wind-pipe, that organ passing beneath the skin, upon the outside of the body, to the extremity of the breast-bone, where it was attached by a ligament. Then, recurving,



Organs of voice of

1. Penelope Guan. 2. Penelope Marail. 3. Penelope Parrakoua.
From Temminck, reduced.

it passed back, and entered the body as in other birds. Probably the loud trumpet note of this bird is owing to this formation."*

Of the admirable efficiency of the means employed there can be no question with those who have once heard their wonderful vocal effects. The object for which this faculty was conferred upon these creatures by their Creator, may be supposed to be, that, as these birds inhabit the densest, darkest, most impervious, and entangled forests of South America, and are dispersed mostly in separate pairs, a voice of varied expression and space-penetrating power is necessary to telegraph their whereabouts to each other, as they are hidden among the leaves in search of fruits and berries, lest they should be lost and part company in the sylvan labyrinth.

Even less is generally known respecting Guans, as far as their propagation under human sway is concerned than about Curassows. Almost every late book (on Ornithology especially) which mentions them, recommends them as a desirable and easily-managed addition to our poultry stock, or our head of game; yet no author has either seen this project carried into practice, or has given, or can give, any directions in detail as to how they are to be successfully managed and reared.

Thus, M. Temminck, whose French we believe we are translating into English for the first time, remarks—"The Penelopes, with a disposition not less gentle and peaceable than the Curassows, have less frequently been made the subject of experiment. Although their manners are so similar, the Penelopes

* Edwards' Voyage up the Amazon, p. 144.

have not yet received from man the same regular and continued care. Nevertheless, by judicious treatment we might easily succeed in transplanting these useful creatures into Europe; rural economy would find in this genus of birds, as in the two former (the Pauxi or Galeated, and the Hocco or Crested Curassow) important resources and new means of prosperity.”* This proposed additional fund of agricultural profit seems surely deserving of consideration and worthy of a trial. Temminck’s three volumes were printed in 1815. Mr. Bennett, in 1830, relying upon this opinion of Temminck’s, and not, the reader is requested to bear in mind, upon any success in acclimating and rearing Guans that had been anywhere attained, writes, “There can be little doubt that with proper care and attention these birds might be added to the stock of our domesticated fowls;” giving as a motive for endeavouring to make the addition, the tempting incentive that “they are spoken of as furnishing an excellent dish for the table.”† More recently, Mr. Martin, in 1848 or 1849, for the numbers in which the work is published bear no date, states, “The Guans are of more rare occurrence in our menageries or vivaria than the Curassows; we have, however, very frequently observed the present species—the crested Guan—and can affirm that it is in all respects as fitted for naturalisation as either of the preceding” [just as much, and no more]; “indeed, it has been domesticated in Holland, and therefore might be so in our country, though perhaps less profitably, as it appears that, though these birds associate

* Histoire Naturelle des Pigeons et de Gallinacés, tome iii. p. 46.

† Zool. Gardens, vol. ii.

in flocks, they pair like the pigeon or the partridge. Perhaps their introduction as game might be the most advisable."*

Thus, then, the matter stands at present, according to, we believe, every yet published authority. Guans can be and ought to be reared, in every squire's or large farmer's poultry-yard, we will not say in swarms or flocks, but certainly in moderate and tolerable abundance. They are not, however, yet visible either at home or at market; not in our coverts, nor at the game-shop. But why not? There is a fault and a difficulty somewhere; either we have been very remiss and indolent in neglecting to make such valuable acquisitions, or—Nature has been very unyielding.

Now the causes which incapacitate a foreign bird for domestication with us, are, either an invincible wildness of disposition, which Guans have not; or an inability to bear our seasons, which they have to some extent; or an utter repugnance to breed in captivity, which they have eminently. The circumstance of their producing only a *small* annual increase of young, if it would but continue *annual*, although small, is by no means a complete bar to their dispersion among the country residences of Great Britain; for they will be protected and maintained by the wealthy, and only slain now and then for the table as a dish of state, exactly as at this day is the case with Peafowl. Curassows *have* bred under circumstances of extraordinary petting and indulgence, just as Mangoes and Bananas have been ripened on British ground by skilful gardeners; but Guans can scarcely be said to have bred at all.

* Knight's Farmer's Library, Art. Poultry, p. 569.

We do not think it can be asserted that the Cracidæ, the Curassows and Guans, have not had a fair trial of their usefulness and profitable increase; but the results, like those of so many other unsuccessful experiments, have not been recorded, and attempts are consequently renewed by successive generations of experimentalists, to meet only with successive failures. It is not pleasant, and requires just a little determination, to confess boldly, "I have tried hard to accomplish such or such an object, which everybody else, as well as myself, thought very easy to effect, but I could not succeed: I have been baffled; and the thing requires a cleverer or more wealthy person than myself to perform." But unsuccessful experiments, faithfully detailed, may, like the cases given in medical books, be almost as instructive, and quite as useful, as if the writer had the gratification of announcing a practical triumph. It is certain that the publication of the experiments in agriculture which have not been found to answer, would be the means of saving much needless expense, and preventing much disappointment, and so be conducive to the public good, as a beacon and a guide to those who are to follow us.

The main point on which writers rely in continuing to recommend the trial of Curassows and Guans as an addition to our stock of poultry is the mention of them by Temminck as having bred in Holland previous to the first French Revolution. It will, therefore, be to our purpose to see what reliance is to be placed on that circumstance, because these birds have not ceased to be kept in Holland. Though the menageries of that date were broken up and dispersed, the birds have been continually imported from their native forests, and are

now living in captivity, both on the Continent and in England, in greater numbers, and under more favourable conditions, than ever they were before; and yet the much-desired solution of the problem, "To rear Curassows and Guans as poultry," remains just as far from our discovery as it was 30 or 40 years ago. We may seem to speak in rather sweeping terms; but all the Cracidæ may fairly be described in general language as far as regards the difficulty of naturalising them here.

We have Temminck's book (from which most people's notions on the subject are borrowed, either at first or second hand) now before us. We remarked in the foregoing chapter that M. Ameshoff's famous Curassow dinner, at which he was present when a child (*dans mon enfance*), which has been made so much of, was nothing but a dinner of display, something like the dishes of Peacocks' brains and Nightingales' tongues served up in ancient Rome; and that it is no more to be taken as a proof of the ease with which he propagated the Cracidæ, than is the eating of the rare birds and animals in the Jardin des Plantes by the insurgents during some of the late Parisian outbreaks, to be set down in history as an evidence that such birds and beasts bred so freely at that time in France as to furnish an item of the popular dietary.

Temminck* says, "I have observed the Curassows in many menageries in Holland, where they were scarcely less familiar than the Turkeys, the Peafowl, and the Guineafowl [which is exactly their true character in menageries in England]. I attribute their infecundity in the state of domesticity to the little special

* Vol. ii. p. 457.

care (*aux peu de soins particuliers*) that is given to these birds; which, without contradiction, demand the most assiduous attention before becoming perfectly acclimated." Now, whoever has had the gratification of being permitted to view the aviaries at Knowsley, will not allow that the birds there have any right to complain of the want of special care, assiduous attention, or any other conceivable circumstance to encourage and tempt them to make themselves at home, and settle, and become the founders of an immigrant family in a new land; and if the Guans there located decline to become an addition to our poultry stock, the fault must be laid to their own obstinacy and perverseness, and not to the absence of any circumstance necessary to their comfort, if they were but inclined to favour us with a few broods. Even at the Zoological Gardens, in a more confined space, and with more frequent interruption from visitors, they have quite sufficient accommodation, and quite adequate attention from very intelligent keepers, to multiply with rapidity, if it were but in them to do so. The provoking circumstance of the matter is, that they are so extremely tame and impudent, so apparently happy and contented, that it seems a thing of course that they should lay and hatch at the proper season, and makes one inclined to ask them with some severity, why they do not go on properly, and conduct themselves like other domestic fowls; and to reason with them, and insist upon their good behaviour, as if they were so many refractory children.

But all we can learn from Temminck to guide us is, that one or two species of Guans and Curassows have bred in Holland; so also they have in this country; and so too have Monkeys, and Parrots, and Giraffes, and Emeus; and those who are hopeful may encourage an

anticipation that these creatures will be, therefore, an addition to our domestic animals. But others, who have united practice with theory, will believe that the Cracidæ have already had a fair trial, and that further pains and trouble are likely to be thrown away, and that the adage still remains true, "*Naturam furcâ expelles, tamen usque recurret*,"—"You may expel Nature with a fork, yet she will still come back again."

Temminck, at the time when his valuable treatise was published, was justified in expecting a successful result. The birds imported showed in their menagerie every reasonable symptom of capability for domestication. They were as tame as tame could be; they had even in a few instances bred; he might naturally exult that "*ces tentatives ont été couronnée par les plus heureux succès*;" and then, in the midst of this commencement of success, they were suddenly dispersed or destroyed by political convulsions. The testing of the creatures was abruptly interrupted just at the point when a decided result, either positive or negative, might be expected shortly to show itself. The very able naturalist was right in advising that they should be again collected and tried with care. They *have* been patiently tried for the last thirty years, and not a circumstance has been omitted which could lead to success; and we now take upon ourselves to recommend those who may be inclined to continue the experiment, to discard all hope of useful profit, whatever they may gain in interest and amusement. They may find agreeable pets to divert their leisure; but they will raise from them no profitable poultry to repay their expenditure and reward their trouble.

How sanguine Temminck was when he wrote his treatise, may be seen from the following passages, which

we translate:—"The natural disposition of the Hoccos seems in some sort made for domesticity: it is certain that by applying more to rearing them than we have done hitherto, we should succeed by the force of care in procuring from some species of this genus, perhaps from all, the same utility, joined to the same enjoyments, which repay us so amply for the care we have bestowed in rendering familiar other species of gallinaceous Birds. The natural disposition of Hoccos, hatched and reared in domesticity, is more particularly to be compared to the soft and peaceable manners of the Cocks; they love to find themselves in the neighbourhood of man, whose society they appear to court. . . . Once acclimated"—there is the rub—"they are not delicate as to the kind of their food;"—nor are they without being acclimated—"they eat indifferently maize, peas, rice, bread," &c., &c. And we therefore allow that he had plausible reason for hoping that some advantage might result from attempting the domestication of this inviting family of birds. "The Marail," says Sonnini, "is easily tamed. I have seen one whose familiarity was troublesome; it was sensible to caresses; and when its own were responded to, it displayed marks of the liveliest joy by its movements and its cries, which resembled those of a Hen calling her chickens around her." Again, "a pair of these birds (*Penelope Siffleur*, or Whistling Guan), sent from the colonies of Dutch Guiana, lived a long time in a menagerie near Utrecht. M. Backer" (any relation of the Messrs. Baker, of Chelsea?) "also kept some in his beautiful menagerie near the Hague. They are familiar birds, not unquiet, and live in harmony with the other occupants of the poultry-court."

After reading and hearing all these flattering accounts, it is very natural that many amateurs, ourselves included, should have been sorely tempted and sadly puzzled about the Penelopes—not their specific distinctions—those are usually left to the learned to unravel, and Temminck has laboured with great effect at that task—but about the alleged possibility of their being actually added to our stock of useful poultry. We have seen that almost every late ornithological writer, Temminck, Swainson, Bennett, Martin, &c., talk as if we had little more to do than to procure them, and set them a-going in our farm yards, to make them produce, almost as freely as Hens, an abundance of first-rate fowls for the table. But, as it appears, no one has yet succeeded in doing this with Guans, any more than with Curassows; nor can we find, in any books of South American travels, positive evidence that they are reared in captivity in their native country, although they are very frequently kept tame there as pets. In the winter, therefore, of 1848-9, living specimens were obtained from a London dealer, Mr. Jamrach, of 164, Ratcliffe Highway, who purchases largely for the Zoological Society. They really were, as they are described by naturalists, affectionate, confiding, and even troublesomely tame. But the object was not merely to procure a pleasing aviary bird, but either to get them to propagate, and see our neighbours and friends do so likewise, as the *savans* have told us we may and ought to do, and thereupon lay claim to the great merit and honour of distributing and dispersing an actual addition to our poultry stock; or to ascertain, by fairly testing their capabilities, the fact that they are *not easily rearable* in England, and so save other fanciers of exotic poultry

from future expense, or at least from disappointing speculations.

It is certainly a very remarkable case of fitness and unfitness, of assimilation and rejection—may we not say of Providential design and arrangement?—that so many of the natural productions of Asia, the cradle of the human race, should be found available for our permanent use, while so few from the newly-discovered hemisphere can be fixed under our sway without difficulty. It mattered little to the infant human race, that the western world lay so many centuries unknown and cut off by the then impassable expanse of ocean, if it was to yield so few things necessary to the requirements of a rising population. The observation is applicable to plants, as well as to birds and animals. There seems to be almost a natural repulsion between our soil and whatever comes to it from South America especially, and a kindly relationship and attraction to things which are the growth of eastern regions. We have scores of plants from the warm parts of Asia and its islands, which stand the climate of Great Britain admirably, and are most valuable additions both to the flower and the vegetable garden; whereas, we believe, everything which we have received from South America, the extreme parts excepted, such as Potatoes, Heliotropes, Marvels of Peru, Tropæolums, &c., not only are cut down by the slightest frost, but are with difficulty saved from “damping off,” as the gardeners call it, during our winters, even if protected from the cold. According to all that we can as yet gather, a similar degree of suitability and unsuitability to English seasons extends to the birds also of these respective continents: while Cocks, Pheasants, Pea-fowl, and, it now appears, Lophophori, can be raised

as easily as Hollyhocks, Hydrangeas, Chrysanthemums, &c. ; Curassows, Penelopes, Tinamous, &c., are, on the other hand, to be fostered only in greenhouses, like so many tender annuals.

The only bird from South America that we have done anything with, as far as we can recollect, is the Musk Duck, and that does not appear to be a very profitable speculation, or to have increased in hardihood or fecundity since its introduction. Every authority, in short, shows that there is a greater difficulty in introducing and establishing the gallinaceous birds of South America into England than those from the East, although the latter have so much longer a sea voyage to endure. Thus, as one instance out of many, in Robertson's admirable letters on Paraguay we are told, "I shipped four of these birds (the large Partridge of South America, *Tinamus rufescens* of Temminck), under the hope of introducing the breed into this country; but they lingered, notwithstanding every precaution, in an unhealthy state when they came into a cold climate, and died in the Channel. Still, I think they might be introduced, and they would be a very great acquisition to the English sportsman." And thus hopes of reclaiming bird after bird are held out to us, only to be consecutively baffled in the experiment.

An additional difficulty in getting South American birds to settle comfortably in England may arise from their finding on the northern side of the Equator a reversed alternation of season ; so that not only have they to contend with a comparatively severe climate, but their proper times of laying, hatching, moulting, &c., would be completely thrown out of proper course and order : the months which hitherto have been summer to them

would here bring winter, at a period when their constitution is, perhaps, least able to withstand it. The impediment has been partly overcome in the case of several Australian birds, such as the Black Swan and the Bronze-winged Pigeons; but still this game of cross purposes in the seasons may have had something to do with keeping up the line of demarcation in the Fauna of the northern and southern hemispheres, and renders the acquisition of birds that have been long resident, or, if possible, bred in this country, most desirable to the experimentalist. With many birds, as we shall hereafter see, the spring of the south exerts its influence in a northern climate, even after the lapse of many years.

As to their suitableness for our climate, Mr. Charles Darwin had informed us that "Buenos Ayres is the farthest point south at which the genus of Guans occurs, and there there are at worst the slightest frosts. I have no doubt the imported birds come from Brazil or Guiana, the climate of which is so like that of India that it must lie in the innate constitution of the bird, if it does not do as well as Peacocks or Poultry. The Guinea-fowl from the *dry deserts* of Africa has always appeared to me to have withstood a greater change of climate than any other of our poultry. The hen Guans, or birds of the genus, are said sometimes to lay their eggs in a common nest, and if these are reared, it would show that the young must be able to feed themselves."

The circumstance which induced us to make the trial was a visit to the Surrey Zoological Gardens in the spring of 1848. Of all the choice birds that were there collected, a Guan intreated the most earnestly to be trusted with liberty, and promised most faithfully, by voice and manner, to reward the benevolence of its liberator. We

had hoped that birds thus permitted to go at large would derive such an advantage from the change out of a dealer's garret to a free run in the country, as to breed in due season; and it was also desirable to place them in the same position which they would have to occupy if they were really destined to prove eventually any acquisition to the British poultry-yard. Accordingly, on the receipt of a pair of the *Penelope superciliaris*, or Eyebrowed Guan, in the following December, we turned them at first into a large empty room to test their wildness; but they ate readily from the hand, and were soon set loose with the other poultry, roosted with them in the hen-house at night, and took their chance of messing with them by day. Their favourite food on their arrival was shred cabbage, for they emulated the Londoners themselves in their appetite for greens and fruit; afterwards they preferred boiled rice, or pollard and barley-meal, mixed stiff with water, and now and then would take a few kernels of barley or wheat, but to this day are disinclined to eat much grain*. They continued in moderate health at first, but one of them subsequently died

* The diet and manners of these birds in a native state are thus described by an eye-witness: "Guans were stripping the fruits from the low trees, in parties of two and three, and constantly repeating a loud harsh note that proved their betrayal."—*Voyage up the Amazon*, p. 143.

"Curassows moved on with stately step, like our wild Turkey, picking here and there some delicate morsel, and uttering a loud peeping note; or ran with outstretched neck and rapid strides, as they detected approaching danger."—*Idem*, p. 141.

"In the Brazilian forests the trees are usually thickly covered with berries of some sort, and until these are entirely exhausted, the concealed sportsman may shoot at the perpetually returning flocks, until he is loaded with his game. Berries succeed berries so constantly throughout the year, that in some spots the bird's food is never wanting."—*Idem*, p. 31.

from the climate even of that mild winter, and the survivor lost some of its claws from chilblains. The bird of which we were thus deprived (a hen, now mounted in the Norwich Museum) was replaced by another fine one, so tame as to fly up and alight on our fist like a Hawk, when called to receive a morsel of bread. She had the misfortune to break both her legs in scrambling through a hedge when no one was near to help her, and died soon after. Another mate was again provided for the lone Guan, and still continues in his society. It was quite evident that, till summer came, they suffered much from cold ; for whenever the kitchen door was left open, they would dart in to warm themselves, and frequently sat on the fender to enjoy the blaze of a roasting fire. But at all seasons they manifest this propensity to insinuate themselves into the house, and pry into nooks and corners. If a window is left open, or a door ajar, they will make themselves at home either upstairs or belowstairs, sometimes announcing their presence by cries that would sound horribly alarming to those who are ignorant of the gentle temper of the utterers, and occasionally giving even less agreeable tokens of their domiciliary visits. One morning, while busy writing, we heard a great clatter in the adjoining apartment; on inspecting the cause, there was one of the Guans on the drawing-room mantel-piece, admiring itself in the glass, and making room for its mate by clearing off the china ornaments. Well might we mutter Alexander Selkirk's complaint, as nearly as we could recollect it in our excitement —

“ These birds, stealing into the house,
My form with indifference see ;
They are so disrespectful a race,
Their tameness is shocking to *me*.”

The first and third rhymes are not happy, and we hereby beg to apologise for them ; but they are not much worse than Cowper's original "plain" and "man," or "see," responded to by the emphatic "me," in an island where there was nobody to stand in antithesis to "me." But, to waive this piece of criticism, the Guans go on playing exactly the same tricks. The only indication they have given of nesting, is that one of them entered through the iron bars of the nursery window, and buried itself in the nurse-maid's work-basket ; whether it intended to make use of the accommodation as a nest, or as a dusting-hole, it has not to this day explained. Frequently in the evening they will refuse to enter their shed, but will mount to the ridge of our house-roof or up the tallest trees close by, and thence, at about four or five o'clock next morning, when the chilly hours come on, they will fly to the sills of our bedroom windows, and with much croaking and flapping of wings, beg, like the dissipated inmates of a lodging-house, to be admitted at that unseasonable time. One of them nearly got shot lately, being taken for some unhallowed night-bird, by alarming in this manner the inhabitants of a cottage to which it betook itself, after failing to procure admission at home. But indeed there is no keeping them within limits in warm weather and when the trees are in full leaf. The old ballad ever runs in their heads—

" When shaws been sheene, and swards full fayre,
And leaves both large and longe,
It is merrie walking in the fayre forrést
To heare the small birde's songe."

But in these days of gamekeepers and of naturalists ambitious to add to the list of home-killed birds, with

the chance of being immortalised in some future edition of Mr. Yarrell's standard bird book, the Guans should think of a subsequent stanza:—

“It had been better of William à Trent
To have beene abede with sorrowe,
Than to be that day in the green wood shade,
To mete with Little John's arrowe.”

And so we are, at last and unwillingly, compelled to subject them to occasional aviary confinement. Any stranger to whom they take a fancy, or even a dislike, they will follow off the premises as closely as a dog will follow his own master. In their attachments they are most capricious: one of the Guans always erects his feathers and threatens an attack (which is executed if permitted) whenever he sees our little girls; and though the other poultry were unnoticed, except when he had any tit-bit in hand, a yellow Bantam Hen with a brood of chicks was made a special object of aversion. The Zoological Society's keepers inform me that their Guans show similar marks of displeasure when certain strangers are admitted into their aviaries. Mr. Jamrach had told me that giving them raw meat occasionally would tend to induce them to lay; but they have had that, and all the insects they chose to gather during their rambles, in vain. With better accommodation and more elbow-room than falls to the lot of many country clergymen, we have still been unable to keep them from straying, and unless our neighbours, on whom they have trespassed, had been very obliging, they must long since have been destroyed, or made off with. As it is, continual sixpences and pints of beer to the bearer in reward for their restoration from tree-tops and road sides, have made the “profit” as yet derived from this proposed addition to our domestic birds

quite a negative quantity. One hour mischievous intruders, the next careless truants, they may provoke a smile at their odd freaks, or excite interest by their confiding familiarity; but we hope that henceforth their serviceable introduction either to the poultry-yards or the game preserves of this country will be spoken of rather as a mere remote possibility than as a promising speculation. In order to avert accusations of presumption in venturing to decide against any probable utility or profit to be expected from the domestication of the Penelope, we produce extracts from the letters of a friend (H. H.), who undertook the same experiment at about the same time as ourselves:—

“You have revived my old Curassow-longing by the mention of the Guans, and I should much like to have any further particulars you may know about them. Their price, 50s. the pair, is a good deal, but yet not unreasonable, when we know what is given every day for Malay articles. Are Jamrach’s full-grown birds, and do they make a *very* unearthly noise? I do not want a couple of mere pets, but something that would breed, and become interesting in point of producing a new sort of game or poultry. I know they are not showy, except the throat and legs, but are they nice, dignified birds? If I had a pair, I should not place them exactly with the other poultry, but in another place, where they would do well, if the having access to scraps of bread, &c., &c. that are continually being thrown out there would not hurt them.

*

*

*

*

“My pair of Guans arrived this morning, Jamrach foolishly sending them by the mail train at night. [This was in the month of February.] I am rather in the

dark about them as to their identity with those (*Penelope cristata*) mentioned in Bennett's work on the Gardens. These sent have *no* crest, and the spots of black and white, instead of being confined to the neck and breast, spread over the wing-coverts; the naked red skin under the neck, although present, does not form so prominent a feature as I expected. There is a white line, too, over each eye. Now, are these in immature plumage? [They were, like our own, the *Penelope superciliaris*, or Eye-browed Guan of Temminck, and exactly resembling larger, and we believe older, specimens of the same species which we have seen at the Regent's Park Gardens and in Lord Derby's menagerie.] The birds are not so large as I expected, but rather elegant; they are not in very good condition, but seem healthy. I have applied a little warm soap and water, which has done a deal of good. The male is the most confiding, the lady rather more skittish. I had hoped to see them heavier, and not so inclined to use their wings. I like their usual note. They will be kept in an airy aviary for the present, till I see what they are made of. It is a good plan, when the tail feathers are broken off, as many of my birds' are, to extract the stumps gently, and let them grow up afresh; they otherwise remain a long time. * * *

"It is a pity the Guan does not produce more eggs (from two to five); but may they not become more prolific by domestication? [the old fallacious hope.] As in the Turkey, the red part of the throat becomes more visible when eating or erected. They are thriving, and being partially sheltered in bad weather, and with a little care this first winter, will become thoroughly acclimatized by the breeding time. [Again the ever-

deceptive expectation that *we* can change the inborn nature of things.] I imagine they are not really tender birds, but may have been coddled by the London dealer. Though mostly docile and gentle, they are yet the most obstinate birds in one respect I ever met with, viz., if you wish to drive them anywhere, they will directly tend the other way, right against you, even through your legs! Indeed, Paddy's pig was a joke to them. It is remarkable, that although so tame as to feed from the hand, and fly up to my bedroom window (where I have several times detected the cock Guan on my dressing-table, attentively examining the brushes and combs), yet when shut in, they exhibit more timidity, and a Guinea-fowl-like restlessness, which vanishes when they are let out. Courage they are by no means deficient in; and an engagement between one of them and a good-natured old Cock was amusing enough, the Cock being shy of his new customer, and making only half attacks, and the Guan dropping his wings, and sailing round him, giving him a sudden poke or two, and then drawing himself up nearly erect, with a kind of 'Who-are-you?' air, and giving at the same time, a shrewd, comical glance sideways, which they are very fond of doing.

*

*

*

*

"I am in a great fix at present about the Guans, as the cock has a kind of attack every other day, that completely puzzles me—unless one may call it hydrophobia! It is not the staggers, but a kind of paroxysm, with temporary weakness in the limbs, and gasping; you would think he was dying every minute, but next day he is as well as ever: this has occurred three times. He is a noble bird, and so thriving in flesh and plumage, which makes it more vexatious. I thought the hen

Guan not sufficiently thrifty to insure breeding by-and-by; so Jamrach obligingly changed her, which I have repented of ever since, as I have got a fine but unmanageable one in lieu thereof. I am daily thinking of having the first back, but wait to see if the cock dies or lives, when I must make some arrangement with Jamrach. So you see what a stupid mess I have made of it! How do yours get on?" We were thus hard at work trying to make a beginning of acclimatizing and naturalizing some of the Cracidæ in East Anglia and in the south of England, in obedience to the suggestions of Messrs. Temminck, &c., without yet suspecting that the labour was in vain. The experiment proceeded—

"My poor Guan is dead, not surviving the fifth attack. I thought of epilepsy, after I wrote to you, and believe it was that. The birds might have been kept short at Jamrach's, and allowed no gravel [it would be contrary to a dealer's interest not to take every care of valuable birds], and my bird perhaps throve too fast afterwards. He was a splendid fellow. I am not particularly tender-hearted, but I never wish to see a Guan die again: it made noises just like a little Christian, enough to bring the tears into your eyes, and was indeed what the poor people call 'a hard-dying crater.' I have dismissed the unruly hen, and have a pair of tame, rather large ones, from Jamrach, one of which is nearly chestnut colour on the head and breast—I suppose a two-year-old hen."

One of our own birds had died from inability to stand the mild winter of 1848-9, but still the idea could not be entertained that so many scientific and speculative naturalists could be at fault, and the blame was then supposed to lie with the London dealers. Specimens from the metropolitan bird merchants are certainly often

in a sad, rickety, and declining state; but if we go and buy a Heliotrope or Verbena of a florist, we have no right to blame *him* because it does not bear exposure to our climate during winter, be it never such a miserable scrap. However, the next move is, that *there* may lie the cause of failure. "The Guans I have sent back: they, as well as all the specimens that I have seen, have the seeds of disease from over-close confinement, I imagine. They got thinner under the best of food and attention, and as I did not wish to lose any more, I returned them, and told the vendor either to send me a pair of stronger birds now, or let the matter rest till I come up to town, when I will make some purchase; but *not* the pair of Emeus he lately offered me for 35*l*. (How famously they would draw a carriage full of children, if one had any!) Still, although these dealers' birds will not pay, I think if we could have a fair start with healthy unmuddled birds from any source (from such a place as the Earl of Derby's, for instance), we should certainly succeed. My birds have all been of the *supercilious* sort—the chestnut of the last arose from age, I fear. I dissected my poor Guan, and then quietly interred him: the way in which the trachea comes forward over the keel of the breast-bone, and turns about before entering the larynx, is curious and interesting. I am sorry to hear of the ill-success of your last Guan; but it only proves the correctness of my opinion, that the whole of the dealers' birds are affected in some way or other, so as to render them unfit for breeding and thriving. We shall worry Jamrach to death between us! He has, however, been very obliging."

Here follows an account of the habits of this special lot of birds, before their final dismissal in despair of doing anything with them:—"The character of the

Guan appears to me to be made up of that of three different birds. It much resembles the Pheasant in graceful attitude and demeanour when excited and in action; it reminds one of the quiet mopishness of the Turkey when entirely at rest (and occasionally at other times also); and it now and then, when much alarmed, puts on the quick-eyed distrustful wariness of the Guinea-fowl. It is then that the Guan utters its loudest and harshest note, perched on high, or scampering along at an incredible rate in a sort of sling-trot, having sometimes both wings extended to assist its onward progress, à la Ostrich. At other times, when eating or sunning themselves, they have, especially the cock, a soft chuckling note, not unlike the Barbary Dove or Collared Turtle; and also another still lower note, uttered by the cock in an interrogatory manner, and answered by the hen, nearly an octave lower still. They are by no means great eaters, but they like to have the bread, apple, meat, and other scraps, given them in *large* pieces. My birds will not yet eat corn, though the cock attempts it sometimes, so we have compromised the matter by giving boiled rice. Greens are enjoyed intensely; but I wish to wean them from the dealers' trash, and get them to wholesome corn before the breeding time, and also not to expect every meal from the hand, which the hen did at first, and would scarcely eat from the ground! In drinking, the Guan unites the sipping of the common Fowl with the jolly *haustus* of the Pigeon, taking a good draught, and then holding up the head.

"I took pains at first to form an attachment between them and a couple of fowls kept in the same place, after which they had their entire liberty, the wings being uncut. The chief thing is to have an eye on them till accustomed to Dogs and other creatures. My cock bird,

on being startled in this manner the other day, flew up into a high elm about 100 yards off, ascending to the very top: it was, however, a mere frolic; for on taking his friends, the fowls, to the foot of the tree, he was down in an instant, and quietly followed them home. Both of these are now much heavier than when from the dealer, and with young tail-feathers sprouting abundantly, they having lost the whole of their tails on their journey, being foolishly sent in an absurdly small bird-“cage.”

The conclusion eventually arrived at by this able co-adjutor, if not already anticipated by the reader, may be gathered from this last allusion to them, which we have received:—“The Knowsley collection must be well worth seeing; but I was prepared for the account you give of the impracticability of the Cracidæ, and had written to Jamrach to say that he need not trouble about the Guans, but let me know when he had anything else suitable.”

The opinion of their impracticability was expressed early in the summer of 1849, after careful inspection and inquiry, and some personal experience; but the reader may be pleased to know, by way of postscript, the substance of some later information with which we have been honoured respecting these birds at Knowsley Park.

In 1849 success was attained in hatching both Guans and Curassows: there were living eight of the latter, and one solitary chick of the *Penelope superciliaris*; but, at that late period of the year (the middle of September), little hope was entertained of rearing this last. There were indeed hatched ten Curassows (*Crax Globicera*), but one met with an accident when very young, it is believed from the hen jumping down upon it, so had it lived, it would have been a cripple: the other was nearly grown, and died quite suddenly, as is suspected, from

the bad weather which had occurred in that part of England. There is one great peculiarity about these young Curassows—they are perchers almost from the very first, and appear very averse to go under their nurse; even when put under they quickly emerge, and generally try to get on her back; but a perch, even only a few inches from the ground, is their great object. They appear to be (to coin a word) rather of *dumetal*, than arboreal habits, affecting neither the ground nor yet the tree tops, but something midway between the two.

At Knowsley, during the season of 1850, there have been hatched seven Curassows and two Guans. There have been reared six of the former, five very good birds, and one of the latter now almost full-grown as to wings.

The vignette represents a chick of the *Penelope supercilialis* hatched at Knowsley.



Chick of Guan.

CHAPTER III.

THE CRESTED TURKEY.

Imaginary and doubtful animals.—Crested Turkeys formerly in Holland.—None now produced in English poultry-yards.—Still extant in Central America.—Of two kinds.—Not a freak of nature, but distinct species.—Desiderata in our menageries.

So long as a creature is included, by common consent, in the list of fabulous animals—like the Unicorn, the Phoenix, the Salamander, and the Mermaid—naturalists look down upon it with a feeling of complacent contempt. They smile, as they behold its effigy carved in stone or cut on wood: not an incredulous smile, for the question whether such phenomena are credible or not does not dare to intrude itself; but the curiosity is, to their minds, a natural-historical joke—a sort of Blue Lion, or Swan with two necks. Many respectable and intelligent people are apt to be sceptical as to the veracity of the representations of animals hitherto unknown to them. The rude copperplate of the Anhinga, in Willughby, has often been taken for an outline sketch of a bird that never existed. Some animals, however, that for a long period have remained in the condition of zoological outlaws, have at last been restored to their proper place in civilized society. The Dodo, the Giraffe, the Aldrovandine (*spicifer*) Peafowl, and others, have all passed through this state of temporary rejection. They have been “cut” for a while, but the force of truth and their own merits have rein-

stated them into favour. Proper restorations are made to their rightful owners: the Bird of Paradise regains its long-lost legs and feet, and ceases to pass its whole life in unresting flight; the Halcyon has to yield her sea-borne nest, which retires to the bottom of the ocean, and becomes fixed to the rocks in its true character of Neptune's Cup. But when the fabled monster really shows signs of life, we are perplexed as well as delighted. When a thing, which we took to be no better than a made-up popinjay for holiday wits to shoot at, gives tokens of being somewhere in actual existence, we know not what to make of it. And so it is with the Crested Turkey.

For some time, others, as well as myself, had been puzzled by reading in Temminck's "*Pigeons et Gallinacées*,"* a passage, the translation of which follows. "The Crested Turkey is only a variety, or sport of nature, in the species; it only differs in that it has a crest of feathers, sometimes black, sometimes white; and these Crested Turkeys are sufficiently rare. Mademoiselle Backer formerly kept, in her magnificent menagerie near the Hague, a flock of Turkeys of a beautiful Isabelle yellow approaching to chestnut; they all had an ample crest of pure white."† Buffon also quotes Albin to a similar effect.

What could this mean? Such instances are zealously sought after by those who wish to exalt the innate, self-moulding powers of organic beings,—the idol Nature, in the atheistical sense—in opposition to the creative providential omnipotence of the Word, in the

* Vol. ii. p. 387.

† See Albin, *Natural History of Birds*, vol ii. pl. 33.

Christian theological sense. I could not believe in the sport of nature, and did not like to distrust Temminck's veracity, supported too as he is by Albin. But inquire of any clever farmer's wife what *she* would think, if any one told her that all her neighbour's Turkey-poults grew up this season with large feathered crests on their heads, some black and some white! A pretty freak of nature indeed! She would either laugh, or be angry and affronted from suspicion of a hoax, according as her temper might happen to be. A Turkey's head, with its movable and erigible skin, certainly does not look a likely place for a plume of feathers to start from. Such a *lusus* has never occurred in the great Turkey-breeding counties of Norfolk, Suffolk, and Cambridgeshire; for the appearance of the monster would be sure to be observed, if it ever took place. So we gave it up, till a valued friend sent us the following extracts from "Wild Life in the Interior of Central America, by Geo. Byam, 43rd Light Infantry":—

"There are two species of wild Turkey in Central America, differing widely from each other, both in appearance and value as an article of food. The commonest is the almost black Turkey, with a grey spotted breast and *red crest*; their form is elegant, and their movements resemble the Peahen: they are abundant near rivers or water, and it is not difficult to bag five or six in a day's shooting: but the flesh is dark and rather coarse when roasted, but makes splendid soup, very like hare-soup, and slices cut raw from the breast and fried in a pan, are capital. They are fond of living in very high trees on the banks of rivers and streams, and do not shun much the ranchos built in the forest.

"The other, and much rarer, is a most magnificent

bird, and gains the greatest perfection at the foot of the mountains. The male bird is splendidly plumed in white and metallic lustred greenish black, with *a superb orange-coloured crest on his head*. The female is very different in appearance, and also possesses great beauty, but of another class: the colour of her plumage is more a mahogany, but variegated on the breast and neck like a Pheasant, and *she has a fine black comb, or rather crest*. They are as good to eat as beautiful to look at, but are very difficult to get near to, as they are extremely shy, and avoid human habitations; but when they are caught young, or hatched under a Hen, they soon become so tame as to be quite troublesome. Passing one day under a clumpy, thick tree, I was startled by a great commotion in the branches, when out flew a fine cock Turkey, which I knocked over with one barrel: the report sent out a hen bird, which shared the same fate from the other barrel. Thinking there might be some young ones, I climbed up the tree, and found a nest with two large eggs in it. The nest was clumsily made, but strongly secured by being placed in the fork of several diverging branches. The eggs were much larger than those of the common Turkey. I took them home and put them under a Hen that wanted to sit, and they almost wore her patience out by sitting so much longer on these than is required on Hen's eggs, not to mention her being run away with one night by an Opossum. But her patience was at length rewarded by the appearance of two fine Turkeys. [Query, how did she manage to hatch the eggs after she was run away with by the Opossum?]

“These birds were never touched by our own Dogs, or by those belonging to Indians accustomed to call at the ranchos; but a stranger arrived one day, and his

strange Dog made a dash at these and killed them both, though they were in the midst of poultry he did not touch. However, our Dogs very nearly pulled him to pieces for his pains: but it was vexing to lose them in such a way, as no doubt the pair would have bred."*

We at first suspected that the birds here described might be, perhaps, one a Guan, and the other a Curassow; but Mr. Byam would know those birds from Turkeys; and Central America belongs rather to the Northern than the Southern Continent, and so would be out of the range of the Cracidæ. This circumstance makes the acquisition of live specimens so much the more desirable, and, if they be real Turkeys, or very nearly allied to them, increases the probability of their future domestication in this country as naturally acclimated poultry. They are, moreover, of peculiar interest in reference to the theory of the forms of domesticated animals. The discovery of a wild Crested Turkey, after the instance recorded by Temminck, will much strengthen the belief which we have expressed elsewhere, that there must have existed at some time in the East, an aboriginal race of Polish or top-knotted Fowls. The crests on the heads of Mademoiselle Backer's Turkeys, will no longer be allowed to have been produced by a freak of nature, any more than the Crested Guinea-fowl, the *Peintado Cornal* of Temminck, and *Numida cristata* of Lathan, is "a freak;" but will only prove that the lady had more zealous agents, and consequently a better collection than her neighbours.

That such birds have existed, not only in Holland but in this country also, cannot be doubted, although we cannot tell by what means they came here. Their

* Wild Life in the Interior of Central America, p. 154.

present absence from us looks as if there had been a difficulty in propagating them. Albin, referred to by Temminck, gives a good coloured engraving, which he leads us to suppose was drawn from the living bird while in the possession of an English gentleman, whom he names, about a hundred years ago. He is particularly careful not to admit any apocryphal species into his book. But at present, Byam's birds remain a great puzzle as well as a great desideratum. With much regret at not having the power to give fuller details respecting Crested Turkeys, I am still glad to have made this imperfect mention of them, both because they will be a great acquisition to our aviaries, perhaps to our poultry courts, but most especially because that, on the appearance of any of these rarities, they may not now be looked upon as "a sport," the offspring of domestication, but as a pure and primitive race. None of the theories frequently deduced from the supposed transmutation of corn, &c., can now be propped up by the re-introduction of these birds, which we have hopes, ere long, of seeing in England. The Earl of Derby, who has already rendered such great assistance to zoology by enriching its stores, is promised to have sent from South America, not only those tempting species mentioned by Mr. Byam, but also the *Oreogallus Drobianus* of Gray, or Chao of Central America, (Chao being the native name of what the Spanish Creoles call the *Gallina di Monti*), and likewise the lovely Ocellated Turkey, of which his lordship possesses a solitary living female specimen. Whether as possible replenishers of the larder, or merely as most elegant additions to the menagerie, all these birds are very earnestly to be desired.



Nest of Water Hen.

CHAPTER IV.

THE WATER HEN.

Undomesticable, and of paradoxical habits.—Their familiar caution.—Attracted by luxuriant water-weeds.—Will have their own way.—Mode of travelling under water.—And on the surface.—Post mortem.—Proofs of creative design.—Habits of the young.—Rare water-rail.—Aldrovandi's uncertainty.—Versatility of Water Hens.—Modes of escape.—Water Hens in St. James's Park.—Water Hens about country houses.—Odd noises.—Activity of the young.—Usual nesting-places.—Prolific breeders.

“THE arrowy course of the Swallow—the wanderings of the Albatross—or the soarings of the Eagle—are all directed to certain points, and are confined

within limits, invisible indeed to the material eye, yet as impassable and as exclusive as a wall of brass. 'Hither shalt thou come, but no further,' with safety or comfort to thyself. This command, although not pronounced, is a part of the natural instinct of every animal in a state of nature. Domestication can do much, but its effect is almost entirely limited to those animals which have been marked out by our Creator as destined to the service of Man. Let him be thankful for these exceptions, and not, with a modern philosopher, idly boast of *man's conquest of nature*, when his highest faculties cannot domesticate—a worm!" *

The Water Hen seems as much disinclined as the worm to submit itself to human discipline, or to go in any other way than its own, however frequently it may cross our path, or delight to intrude as a privileged trespasser, whom there is no gainsaying, within the precincts of our gardens and shrubberies. It is one of the most paradoxical of the feathered race, not in mere form, but in habits and temper combined with form. There are few birds whose entire banishment from this island would be less noticed by the inhabitants of cities, and more immediately remarked by those whose home is fixed in certain rural localities, than the Water Hen. Even in large towns the loss of the occasional sight of the Rook or the Sparrow (in whose expulsion we would cordially assist), of the numerous birds that are seen and heard here and there in cages, or now and then in the game shops—nay, even of Hawks and Owls (though the gamekeepers have pretty severely reduced *their* numbers), would be observed, and perhaps cause inquiries ;

* Swainson.

but the Water Hen is little thought of, even by the strollers in Saint James's Park. In the country, if we have a sedgy stream hard by, or a fish-pond half choked with weeds, or a mill-dam skirted with a few osier banks, the Water Hen attracts the attention of the most indifferent observer by its merry freaks, its odd noises, the perplexing "fast and loose" system on which it ever and obstinately treats all human society and neighbourhood, and the remarkable faculty which it exhibits of making itself quite at home in every one of the four elements, fire alone excepted.

We have adopted "Water Hen" as the most appropriate English name of the *Gallinula chloropus*, or Green-footed Gallinule. "Moor Hen" suggests to the mind the Moor-fowl or Moor-game, a gallinaceous bird, and besides sounds and looks like a corruption of the old title, "Moat Hen," which is far more correctly applied. A moor, if we bear those of Yorkshire and Scotland in mind, is an uncultivated tract or waste, in the uplands, or table-lands, or on the shoulders of hills; and though such places do abound in standing water and rushy pools, they are more likely to be the haunt of the Mallard than of the Water Hen, which much prefers the warm, muddy, weed-covered creeks in low fenny districts.

In two remarkable peculiarities, either of which ought to draw upon them the close attention of naturalists, Water Hens are anomalous birds. They have feet apparently as little adapted for swimming as those of a Pigeon or a Lark, and yet are as much at ease in the water as any bird whatever which is not of oceanic habits; and they seem, from delighting in an approach to the dwellings of Man, to require only a little persuasion, and encouragement, and kindness, to become perfectly

domesticated, but are of all birds perhaps amongst the most untameable. They treat us in the same tantalising way as the Swallow does the Hawk; they are continually glancing within a few yards of us, but never come within our actual reach. As we retire, they advance; on our advancing, they sound a retreat. They will measure the nearness of the approach which they think prudent to make toward us, exactly according to circumstances. Does an afternoon cloud overshadow the landscape, out come the Water Hens from their hiding-places in the sedgy banks; does the cloud send forth a pelting shower, which drives the gardener and the labourer to seek a temporary shelter, the Water Hens extend their range, to retire again as soon as the squall is over, and outdoor work resumed. Before breakfast, while the family are not yet down, they will flirt and play and feed under the very living-room windows, but as soon as the faces of their would-be friends are seen peeping thence at their gambols, they keep their former cautious distance. Should the household be unusually quiet from sickness, death, misfortune, or an absence for change of scene, the Water Hens know it, and presume upon their knowledge; immediately that they perceive symptoms of returning bustle and cheerfulness, they judge it time to desist from their intrusive visits. Not that they are to be frightened quite away by a good deal of noise and disturbance, if there is but plenty of the food which tempts them, and the cover which they delight in. The din of a foundry has not prevented their occupancy of a neighbouring pool: and if grass and tall weeds did but grow, not in the streets but in the canals of Amsterdam, there we believe, would Water Hens be playing at hide-and-seek. In our own case, a large piece of

water was overgrown with aquatic weeds, so much so that in the month of June in former years no water was visible, but its surface looked like a green continuation of the lawn and the meadow; the bottom was paved with a network of gigantic roots of water-lilies, both white and yellow, reminding one of the extinct vegetation of a former world, and there was a rich variety of every plant which delights in such a situation. Water Hens abounded. By-and-by we cleared out a greater part of this superabundant mass of weeds, and the Water Hens disappeared. But at the same time a railway was opened, passing within a few yards of one margin of the moat, and to this latter cause we then attributed the flight and retirement of the birds. Mallards and Herons used occasionally to frequent the spot, but have never since appeared there. The weeds, however, have very much grown again; the lilies were scotched, not killed; seeds, insects, and aquatic larvæ now abound, and Water Hens are again abundant, although the trains run screaming past as frequently and as furiously as ever.

In short, they are utterly self-willed creatures; they will do what they like, and come and go as they like, and can neither be coaxed by kindness, nor be frightened away by threats and onslaught, as we soon discovered. For, being pleased to watch their curious tricks and fancies, we at first forbade any to be shot, in the hope of getting up a large head, by preserving them; but the old birds drive off the young ones late in autumn to seek their fortunes elsewhere: a single pair establish a sort of lordship over each small pond, or each reach of a larger piece of water; those in possession of the premises will admit of no intruders; and so we have tried how they answer in a pie, of which we can give a very

satisfactory report; and we believe that if every individual Water Hen were eaten to-morrow, there would again be as many as ever in a fortnight by immigration from some quarter or another, to occupy the vacant space, their world of weeds, and bulrushes, and sedge.

Water Hens not only swim but dive with ease, remaining apparently a very considerable time under the surface. We say, apparently; because they have the cunning to stop in any convenient clump of weeds, put just their head, or part of it out of the water, take breath, and then go on again. Their progress may often be traced by the motion of the weeds, like that occasioned by the passage of a large fish. That these subaqueous excursions are habitually undertaken as a matter of business, and not as mere pleasure trips, or attempts to escape pursuit, is proved by the statement, that they are often to be caught under water by a hook baited with a worm. They are also fond of running rapidly on the surface of the water (like St. Peter's bird, the Stormy Petrel), partially assisted by their wings, but mainly supported by their long toes, spread out over comparatively a large area of floating vegetation, exactly as a skater may glide rapidly over thin ice, which would let him through were he to stand still; but when the weeds are thick and the lily leaves full grown, they step boldly and demurely on, picking up their food, and halting in their way with as much coolness as if they were enjoying a promenade on *terra firma*.

The subjoined *post mortem* of two Water Hens killed at the end of a frost, from a friendly correspondent, is to the purpose. "Gizzards filled with grass and reeds, less powerful than in granivorous birds, *i. e.*, in the birds that habitually get grain: the inner mem-

brane thin, easily torn, the pieces of quartz not numerous, and scarcely larger than millet seed, all showing that little hard work is required to grind their food of insects, grass, and weeds. The elastic membrane fringing the sides of the toes, the length and limberness of the toes themselves, are well adapted for their mode of life, aiding them in running over stones by the water-side, and the reedy, boggy, margins of pools, and occasionally in diving and swimming." Are we wrong in believing that these long toes were intended by the Creator to aid the bird in walking lightly over water-plants in search of its subsistence? They are by no means the only birds in which a similar contrivance has been made to answer exactly the same purpose. Edwards, in his voyage up the Amazon (p. 21), saw "flocks of Jacanas, a family of water-birds remarkable for their long toes, which enable them to step upon the leaves of lilies and other aquatic plants." But, without going so far as South America for an additional illustration, the feet of our own Bittern, with their wide-spreading toes, each terminating in a very long slightly-curved claw, exhibit an admirable contrivance for enabling the bird to walk over spongy morasses, in which, were it furnished with feet like those of the Ostrich, it would soon sink, and be inextricably mired.

"The use of the frontal shield in the Water Hen is evidently to defend the forehead of the bird, when boring and poking for its food in soft marshy ground. We observe the same shield, only of ampler size, in the Coot. The Rook, too, has this defensive armour on his *grey* bill (the mark by which the Rook is best distinguished in the field from the Crow), so developed, that it has been said by some to be *produced* by his boring

in cow-droppings and hollow turfy ground for worms and beetles; but we have only to examine the bill to see that it is a provision of nature for his mode of life. If we compare the bills of birds which subsist on grain and berries, with those of the Water Hen and the Coot, the contrast will strikingly illustrate the adaptation now noticed. In our most cursory and general observations, as well as in our minutest researches, the grand fact is incessantly presented to the mind, that over all these works infinite skill, harmonious adaptation, and the most watchful benevolence preside.

“The linsey-woolsey undercoat of the Water Hen is admirably adapted to its amphibious mode of life. Man has been unable hitherto to devise anything approaching to the soft, warm, and elastic waterproof mantle of the Gallinule. All our combinations of Welsh flannel, Llama cloth, and mackintosh, are infinitely inferior to the coverings of the Duck and the Goose. The way in which this clothing is *distributed* on the body of the Water Hen, is well worthy of notice. The whole is warm and waterproof; but the inner garment over the crop, where it meets the brush of the water in the act of running through wet grass and in diving, is much thicker than on the breast, within which the vital organs are well shielded by muscles and bone. Over the belly again, the thick, close, impervious down covers the intestines, and preserves them effectually from the wet and cold to which they are so much exposed in wading through the moist rank herbage of their favourite swamps. It has often struck me, in examining waterfowl, that the *air* inclosed in the delicate net-work of down must be one provision for keeping the bird dry, as if it were sailing upon a natural air cushion.”—*D. L.*

The reader will be pleased to have one or two original

observations that have been kindly supplied from another quarter:—

“June, 1845.—I picked up a young Water Hen some time since, that had just escaped from the egg, and was swimming off across the river. I placed it with some lately-hatched chickens, to which it soon grew accustomed, though rather complaining and unhappy at first. It would eat bread and any odd scraps very eagerly, and throve well till about half grown, when I lost it one day, and suppose some vermin must have carried it away, as it showed not the least inclination to run away from its friends the chickens. * * * *

“Watching an old Water Hen swimming in the river the other day, I was much pleased with her tenderness and solicitude for her young ones, calling and collecting them round her, and feeding them. On one occasion, one of the brood, a weakly chick, was unable to swim across the river to the mother: she immediately returned, and took it over on her back, with a little soft complacent note, as if she was pleased it was in safety. It is singular that although in the early spring, and throughout the breeding time, Water Hens are so abundant on our river, yet after that time has passed by, we see but few until the autumn has set in. Where they go I know not, or whether it is that they conceal themselves at that time, the time, perhaps, of their moulting.”—*H. H.*

As we do not propose recurring to this family of birds, we will take this opportunity of calling the attention of naturalists to a probably unknown member of it, which has hitherto preserved its incognito, and for a notice of which we are indebted to the friendship of the same accurate observer of nature.

“December, 1844.—I am convinced that there are

two species of the Water Rail, *Rallus Aquaticus*, about our meadows (bordering the Avon, Wiltshire). The common sort is, as described by Yarrell, about eleven inches in length, but the other, a bird of more rare occurrence, though now and then shot here, is much smaller too in respect to the legs, and shorter in the neck. Both sorts are similar in plumage, the difference consisting in size. Yarrell makes no mention of any difference in size between the sexes; therefore I conclude this to be another species. The people here working in the meadows are aware of the difference between the birds, and call the small ones runners. I have not as yet ascertained whether the notes of the runners are the same as the large sort. Both kinds are equally good for the table."—*H. H.*

Aldrovandi, living in Italy and never having travelled northwards, was sadly puzzled between the Gallinule, the Tringa (whatever he meant by that), the Water Ouzel*, and the Rails. He gives what he had heard respecting the feathered inhabitants of this outlandish island, and leaves the reader to judge for himself, "*ut quilibet pro arbitrato de ea judicet.*" We translate the passage† as a curious specimen of middle-aged natural history, and also as a hint to some good-natured archæologian to favour us with a paper on the moats that surrounded many of the country mansions of our ancestors, respecting which so little is known with accuracy, either as to certain peculiarities of construc-

* For an interesting account of the Water Ouzel the reader will be obliged to us for referring him to Mr. Charles St. John's "Wild Sports and Natural History of the Highlands," altogether a charming and genuine little book. We still retain a vivid recollection of the locality in which it was written.

† Ornithologia, tom. iii. lib. xx. p. 487.

tion, or of the date and condition of society in which they were constructed.

“Turner says that the Trynga is in German called Ein Wasserhenn (that is a Water Hen); in English, Mothen (perchance, says Ornithologus, from Morhen). But the bird is all over of a russet brown, except that part of the tail which covers the rump, for that is white, and is then seen when the tail is erected. It has little power in its wings, and therefore makes short flights. In the stagnant waters which fence the houses of the nobility, and in fish-ponds, it mostly dwells amongst the English. If at any time it is exposed to danger, it is wont to betake itself to the thicker reed-beds. So far he. Ornithologus says that he had heard that Snyt* (he probably means Snyp or Snipe) is, amongst the English, the appellation of a bird with a long bill, of the magnitude of a Magpie, which always busies itself near the water, and keeps moving its tail. He doubts whether this be the Water Ouzel or the Water Hen. I, when it is compared to the Magpie in magnitude, rather refer it to the Water Hen. Other Germans describe this sort of bird for the Tringa. Tringæ, they say, are all black, cloven-footed, with white on the top of the head reaching down to the bill; their feet are tall and black; *it* (the confusion of the singular and the plural number is in the original), continually moves its tail, and inhabits watery places. Finally, Ornithologus thinks that to the name Trynga pertains the bird which, at some places, as at Clarona, is named Vvasser Trostle, that is, Water Thrush.”

* “Snytes” were a dish at the “solempne coronacyon” dinner of Henry VI.

Water Hens, to which we will now return, can climb like cats when a sense of approaching danger prompts them to get out of the way. If they perceive a strange dog prowling about their haunts, the sportsman will find as many birds clinging half-way up an ivy bush, or mounted in a spruce fir, to make observations, as are close squatted in the sedges. Their flight too is strong, though their down-dangling legs spoil the look of it. And thus, in the versatility of their powers, earth, air, water, and trees are all accessible to them at their pleasure. No wonder that so supple and agile a character should be averse to leading anything but a freebooting life. Chaucer, to whom they must have been well known, surely meant, in "The Manciple's Tale," to borrow an illustration from the Water Hen—

"Take any brid and put it in a cage,
And do all thin entente and thy corage
To foster it tendrely with mete and drinke
Of all deintees that thou canst bethinke,
And keep it al so clenely as thou may,
Although the cage of gold be never so gay,
Yet had this brid by twenty thousand fold
Lever in a forest that is wilde and cold
Gon eten wormes and swiche wretchednesse :
For ever this brid will don his besinesse,
To escape out of his cage whan that he may :
His libertee the brid desireth ay."

But when captivity is inevitable, the Water Hen resigns itself to its fate philosophically, and makes itself as comfortable as it can, and will even breed in that condition, in arriving at which contented state of mind it is much aided by having part of its prison, especially that towards the water's edge, planted with flags (*iris*). sedges, and rushes, and any other aquatic herbage that

will afford a permanent place of retreat. One wing must be pinioned, close at the elbow, and the inclosed space in which they are kept must be surrounded by walls against which there are no trees or creeping plants growing, to serve the purpose of a scaling-ladder; or by upright paling, or iron palisading—no network will do—or even by a fence of reeds fixed perpendicularly. If there is the least hole or weak place, they will find it out and work their way through it, as surely as Baron Trenck would, were not his catalogue of escapades long since brought to a close. With these precautions they make an elegant adjunct to the fountain, the gold-fish pond, or the aquarium of a pleasure ground. The Lap-wing is another undersized bird, of pleasing shape and still more engaging manners, which is well worthy of being made one of the ornaments of such a situation. It is surprising that they are not advertised for sale by the dealers in such birds; they have not hitherto been the fashion, but could readily be obtained if asked for. Captive Water Hens have bred both in the Zoological Society's Gardens and in St. James's Park; in which latter inclosure they exhibit quite the tameness of despair. There the unescapeable, unceasing, busy hum of men, the daily crowds of prying eyes and prattling tongues, compel them to arrive at the wise conclusion, "What can't be cured must be endured." Those who are desirous that any piece of water in their park or shrubbery should become the constant resort of Water Hens, have only to allow the weeds to grow, and shoot off a few of the superabundant birds, as soon as they are observed to begin quarrelling with each other. The Purple Gallinule—*Porphyrio* (a foreign genus of which there are two distinct species at least, the greater and

the smaller, though exactly similar in their lively colouring, namely, azure blue all over, with scarlet feet, legs, bill, and frontal shield) appears to be so tender as to require great care and housing, and is unfortunately not robust enough in this climate to ornament our ponds and lakes. But our own humbly-clad native species may well claim our regards for the interest which is attached to it.

A stranger, "long in populous cities pent," starts for a country excursion, and arrives rather unexpectedly at the house of a friend. No one happens to be in the way to receive him: all except the indoor servants are dispersed hither and thither after their own devices. As his carriage drives up to the door, he looks around, and soliloquises: "Pretty place—pleasant lawn—nice piece of water—rather full of weeds though; no objection to a few water-lilies and so on, but not quite so many. Those are some of his Ducks—quite a poultry fancier, I know—has written about it in the papers; wonder he was not afraid of being laughed at—I should; and those little things walking amongst the Ducks that are asleep on the grass, and showing a little bit of white now and then in their tails, just as the old ladies used to open their fans—those, I suppose, are some of his Bantams—but they need not fly off in such a hurry to the other side of the water—I am not going to steal them, and should like to have a look at them. I thought he would have had better; they seem long in the leg, with curious bills, queer too in colour, neither brown nor black. I'll wait here in the dining-room till some one returns, and take a chair by the window—and there come the Bantams again, peeping out from what seems an island—and, yes—they take to the water, and

are swimming jerkingly across, nodding their heads as they go to join company again with the dozing Ducks, where I first saw them. What can they be? But here comes our friend."

In the evening a walk in the garden is proposed. Twilight is coming on. The garden skirts the water, which is in places overhung by trees whose branches feather down and droop to the very surface. "What a splash was that! you have some large fish here." Yes, and you shall hear more about them by-and-by; but that was no fish, unless perhaps a flying-fish; for see! there it goes, round the horse-chesnut at the corner; and I need not tell you to listen to the strange noises. Our children are all in bed, or ought to be, so it is not their rattle or penny-trumpet which you hear, but the Hen bird calling her young ones to a place of refuge; and look, there go the little things like black red-nosed mice on two legs (for they are covered with thick fur like that of a water rat, rather than with down, to keep out the water), running over the weeds which you so much dislike, and, you see, where there is an interval between the leaves of only two inches square, some of them are diving with the decision of a whale that is astonished to feel a harpoon sticking between his ribs, and they have taken this mode of disappearance as much a matter of course as the ghost does, who goes down the accustomed stage-trap on the hundredth night of a successful melodrama. *On* the water, *over* the water, *under* the water, are all the same to them. The young cannot fly at present, but will very soon. By this time they have all joined their parent on the island. It is of no use trying to follow them there. They are already much more cunning than you or I. And, my friend,

beware of the bridge ; like other inviting paths, it is full of holes and pitfalls. *We* are forewarned, and so forearmed, but you are a stranger to these dangerous regions. Yet immediately under that insecure loose plank, a Wagtail reared her brood last summer, although a wheelbarrow was rumbling three or four times a day over her head all the while. The bridge is broke and must be mended ; we wish that everything else that is amiss could as easily be set right. But the inventing a pretty rustic design will be an agreeable amusement for somebody in a snug room some dull winter's evening."

*

*

*

*

" And now, as it is a bright warm morning, while they are making breakfast we will, if you are not afraid of the dew, show you two or three of the nests of our ' Water Bantams.' In some localities, they build in trees, in others on the ground, but with us always in this manner. There, you see where the bulrushes have been pulled down into a sort of basket-work, about three feet from the bank : if you attempt to make a long arm, and lay hold of it, you will assuredly overreach yourself, and fall in ; and if you venture to obtain a footing to it, you will sink knee-deep, or higher, in mud and water. It looks like an Egyptian homestead during an inundation of the Nile, or like one of those Don Cossack terraqueous residences that were visited by the brave Dr. Edward Daniel Clarke. That nest contained eight eggs, all of which would have been hatched, but that the young lady whom you see at our elbow, in her anxiety to secure a pet for herself by means of a landing-net, frightened off the dam and seven chicks, and only obtained a half-hatched egg.

The young one chirped strongly in the shell, but what became of it soon afterwards may be easily imagined. They rear several broods during the season. Yonder swim three or four nearly full-grown birds after their mother, begging her to put the seed or the shell-fish she has found for them into their mouths—the great babies!—instead of remembering that they now ought to be old enough to feed themselves. This short-ranging telescope, which we will lend you, will help you to watch their proceedings during the day, on many occasions when they little suspect that your eye is upon them. Water Hen's eggs are often brought to our market, during the spring, to eat, but they are seldom without a slight suspicion of incubation, which is more attractive to an Arctic than to an English appetite. The eggs to appear on our breakfast table to-day are not those of the Water Hen."

CHAPTER V.

KINGFISHERS.

Halcyon of the ancients; what?—Aldrovandi's figures and descriptions.—Nest of Halcyon.—Haunts and habits of the Kingfisher.—Anecdote.—How far destructive to fish.—To procure young birds.—To rear and feed them.—Captive Kingfishers.—Mr. Rayner's aviary.—Diet and habits of Kingfishers there.—Mode of eating.—Their pugnacity.—Destructiveness of a Heron.—Unsociability of Kingfishers.—Management in a captive state.—African Kinghunters.—Australian Kingfishers.—The Laughing Jackasses.

“*HALCYON* is rendered a *Kingfisher*, a bird commonly known among us, and by Zoographers and Naturals the same is named *Ispida*, a well-coloured bird, frequenting streams and rivers, building in holes of pits, like some Martins, about the end of the Spring; in whose nests we have found little else than innumerable small fish-bones, and white round eggs of a smooth and polished surface, whereas the true *Alcyon* is a Sea-Bird, makes a handsome nest floating upon the water, and breedeth in the Winter.”*

Some learning has been bestowed to ascertain whether Halcyon should be spelt with or without the H; leaving the matter much where it was. Sir Thomas Brown, in the above quotation, uses it both ways, and so makes sure in being right in *one* place, and of obliging equally those country-folks who can, and those Cockneys who cannot, pronounce the aspirate. Aldrovandi thought that it was a song bird, and hoped it would not complain

* Sir Thomas Brown, Tracts, IV.

in its mournful and very sweet song (“lamentabile et suavissimo suo cantu”) of the affront he had put upon it, by giving the precedence, in his *Ornithologia*, to other less celebrated birds. According to him, the Halcyon of the ancients no longer exists; in which opinion we may believe him to be correct, if the observations of the old Poets and Philosophers are required to be verified—if we are to find a bird which “at the time of its nidulation, which happeneth about the brumal solstice, maketh a nest which floateth upon the sea,” and which, after death, if suspended in a room, veers to the quarter whence the wind happens to blow, as unerringly and surely as the magnetic needle continually points to the pole. It was another vulgar belief, that if their intestines only were extracted, and their bodies hung up to dry, they would moult every year exactly as if they were alive; but Aldrovandi assures us that he had one suspended in his museum for several years, and yet was never able to perceive the renewal of the feathers. “Most moderns,” he adds, “believe the *Ispida* to be the Halcyon of the ancients: although we disapprove of the opinion, yet we grant them to be nearly allied to it; and the ancients have recorded many things of the Alcyon which are also observed in the *Ispida*.” Pliny’s description is not so very wide of the mark: “*Ipsa avis paulò amplior passere, colore cyaneo ex parte majore, tantum purpureis, et candidis admixtis pennis.*”* The bird itself is a little larger than a Sparrow, of an azure colour for the greater part, only with a mixture of purple and white feathers.

Aldrovandi’s figure of the *Ispida* is an excellent like-

* Lib. 10, c. 31.

ness of our Kingfisher, accompanied by a reduced representation of some water-weed, which, contrary to his usual custom, he has omitted to specify by name, though in other places he makes up for the omission by adding an insect or a fish, as well as a botanical fragment. As Claude Lorraine used to sell his landscapes, and give the figures into the bargain, so Aldrovandi appends to his birds a little bit of plant by way of make weight. Thus we have “ ‘*Grus cum Geranio Cretico.*’—The Crane, with the Cretan Geranium. ‘*Anser quadrupes alius cum althæâ palustri.*’—Another four-footed (monstrous) Goose, with the Marsh-mallow. ‘*Anser ferus Ferrariâ missus cum nymphæâ luteâ majori.*’—A wild Goose sent from Ferrara, with the greater yellow water-lily.” Sometimes he is extra liberal, as when he gives “ ‘*Ardeæ cinereæ tertium genus cum persicariâ, et cochleâ.*’—A third sort of Ashy Heron, with the *Persicaria* and the Cockle.” Other writers tell us that the nest of the Halcyon, namely, the one which floats on the surface of the sea during its prescribed period of calmness, is “very like a sponge.” Aldrovandi gives a large figure from which it is clear that it must have been a sponge. Ancient authors are profuse in their admiration of the skill which the bird exerts in manufacturing this spongy ark, and are in some confusion about the fish-bones, which they suppose to be used as needles on the occasion. The musical talent of the Nightingale, the conjugal affection of the Dove, do not, in their way, surpass the industry of the Kingfisher. That such a bird should disgrace itself by yielding to the weakness of dying of love!

But without reference to these marvels, the Kingfisher is really an interesting bird, from its habits and its beauty, both of which are sure to attract attention.

The holiday stroller from the confinement of a large town, as he tracks the retired footpath that skirts the margin of some small brook overhung with alders and willows, is startled by a shrill, sharp cry, and sees glancing past him one or two winged emeralds : in a moment they are gone, and he walks on thinking of the brilliant creatures that have just vanished from his gaze. Soon he advances to a spot where the streamlet spreads into an open pool : he sits down to rest, wondering at the beauty of the dragon-flies, longing to reach the floating water-lilies, and enjoying the perfume of the mint he has trodden underfoot. He hears a short splash, he turns, and sees the spreading circles on the water ; he looks up, and behold, on an outstretching branch, a bird whose ruddy bosom alone meets his view. He remains motionless, watching his newly-discovered neighbour. Soon the bird dashes into the water, and returns immediately to its seat on the branch : in flight, it seems all blue ; in repose, all ruddy-brown ! It is the same bird which he saw before, but has two completely different aspects—like those double-masquerade costumes, wherein the front assumes one character, and the back another. Again a plunge is made into the stream, and the bird uprises, bearing a little fish in his beak ; this time he returns not to his branch, but departs straight away like a levelled rocket : perhaps the nest is near at hand.

The arrival of the Kingfisher at his fishing station, is as abrupt as his departure thence. The very first convenient perching-place that offers in his course, invites him to alight, if water is hard by. An unexpected example of this habit occurred to a gentleman on whose veracity I can depend. He was angling near Norwich, close by a bridge that crossed a small stream, whose

banks, at that point, were naked of trees or shrubs. As he stood quietly watching his float in the water, a Kingfisher darted through the arch of the bridge, and alighted on his rod, as being the readiest perch. It soon saw by what sort of trunk this taper twig was supported; but the time of its continuance thereon, though only a moment, was long enough to permit a steady view of the gaudy visitor. One might angle for many years without meeting with a similar accident. An iron railing a few yards from our own windows is occasionally thus occupied; and some spruce firs opposite, whose branches droop over the water, often, when lighted up by the afternoon sunshine, serve as resting-places to the Kingfisher. But its haunts seem to be perpetually changing: some weeks not one is to be seen; during other short periods they flash every day upon our sight.

Do Kingfishers make such havoc in our fish-ponds, that they need be persecuted here, as the Water Ouzel is in Scotland? Some few fry they must of course consume; but while we permit the ravages of Eels, Pike, Herons, Otters, and Seals, it seems an overgrudging severity to punish the depredations of the Kingfisher, unless indeed his feathery spoils are wanted to set off, by contrast, a case of dull-plumaged stuffed birds, or to prove even more destructive to the finny tribe than before, in the shape of artificial flies. We rather like to see them dipping into our waters, as a proof of the abundance of fry of the current season, and cannot bring our hearts to grudge them their moderate enjoyment of an occasional white-bait dinner.

But not all admirers of the dazzling tints of the Kingfisher have been content with a casual glance, as the bird flits by at perfect liberty: attempts have been made,

and that with considerable success, to rear and keep it in a captive state. It is true they have not survived very long in confinement, in any instance with which we are acquainted; but an account of what has hitherto been done, may be some guide to those who choose to amuse themselves with the undertaking.

The Kingfisher usually breeds in holes in the sides of banks that overhang small ponds or streams. The nest, such as it is, is composed of small fish-bones, which appear to be the pellets thrown up by the bird after its meal is digested. The eggs are pure white, of a peculiar porcelain smoothness and lustre. So situated, it is easily robbed by any adventurous youth who is fearless enough to encounter the terrible stench which saturates the hole, if he waits till the young are fit to take. When fledged, they are easily reared by hand, and, from the first, have the peculiar metallic brilliancy of plumage which decorates them in after life. They may be had, at the proper season, of the London bird merchants, at about half-a-crown each; but as they are by no means rare birds in those localities of Great Britain which they do frequent, and rear not a small quantity of young, *i. e.*, five, six, and sometimes seven, they are not difficult to be obtained by country residents. Fish at first is their diet, after which they will take to meat; but no stale food of any kind should be given, as it is apt to prove even fatal. They will also, if permitted, dabble and plunge in their water trough, before they have sufficient strength to emerge rapidly, and will die of the cold and chill thus brought on. In a state of nature they dash boldly into the water, and rebound again, as it were, with the rapidity of a cricket-ball from the player's bat. Not a drop of moisture adheres to the

plumage; and if it did, the subsequent exercise of the creature would soon shake it off and evaporate it. But the caged Kingfisher has no such means of warming and drying itself, and must therefore not be allowed to follow its natural instinct of plunging after its prey, till it has attained its full strength.

We have good reason to believe that the very efficient Secretary of the Zoological Society (to whose judicious exertions both the Society itself and the public who frequent their Gardens owe so much) once conceived an idea that a very attractive object would be formed by a small aviary filled with numerous individuals of our native Kingfisher, and furnished with all the necessaries and comforts that could enable them to exercise their natural habits, and so display a concentration of that exquisite plumage, which renders the sight of even a solitary living individual quite an event in a country ramble. We are not aware that the project has ever been attempted to be realized; but if it had, that Mr. Mitchell, before succeeding, would require the best aid of some of the French philosophic "conquerors of nature," and "subjugators of wild races," and "moulders of innate instincts," will appear from the following original and valuable notes which I owe to the kindness of Mr. Wm. Rayner, Surgeon, of Uxbridge. They show how much may be effected in the practical pursuit of natural history, with even moderate means and appliances.

"I send you a list of the birds I have kept in a state of captivity (94 species)*: with the exception of the

* 1, Hobby; 2, Merlin; 3, Kestrel; 4, Sparrow-hawk; 5, White Owl; 6, Red-backed Shrike; 7, Spotted Fly-catcher; 8, Missel Thrush; 9, Fieldfare; 10, Song Thrush; 11, Redwing; 12, Black-

Hawks, the whole were kept in an aviary open to the weather, situated in a northerly direction at the back of my parlour window, and, until I moved into my present habitation, had communication with my parlour, the window then opening into the aviary, in the centre of which stood a stone fountain, the water playing constantly. The class Sylviadæ were separated simply on the score of economy as regards the food, which being soft, and consisting of animal matter, would have been devoured by other birds whose food is generally of a far less expensive character. I send you this list to show the number of birds that may be kept together. My aviary measured 33 feet long, by 10 feet wide, and 17 feet high, consisting of iron wire, in which aviary trees of the fir tribe, and box, birch and beech were

bird; 13, Hedge Accentor; 14, Redbreast; 15, Redstart; 16, Stonechat; 17, Whinchat; 18, Wheatear; 19, Sedgewarbler; 20, Reed-warbler; 21, Nightingale; 22, Blackcap; 23, Garden-warbler; 24, Common Whitethroat; 25, Lesser Whitethroat; 26, Willow-warbler; 27, Chiff-chaff; 28, Golden-crested Regulus; 29, Great Tit; 30, Blue Tit; 31, Cole Tit; 32, Marsh Tit; 33, Long-tailed Tit; 34, Bearded Tit; 35, Pied Wagtail; 36, Grey Wagtail; 37, Yellow Wagtail; 38, Tree Pipit; 39, Meadow Pipit; 40, Skylark; 41, Woodlark; 42, Snow Bunting; 43, Common Bunting; 44, Black-headed Bunting; 45, Yellow Bunting; 46, Gull Bunting; 47, Chaffinch; 48, Mountain Finch; 49, Tree Sparrow; 50, House Sparrow; 51, Greenfinch; 52, Hawfinch; 53, Goldfinch; 54, Siskin; 55, Common Linnet; 56, Mealy Redpole; 57, Lesser Redpole; 58, Twite; 59, Bullfinch; 60, Common Crossbill; 61, Starling; 62, Jackdaw; 63, Magpie; 64, Jay; 65, Green Woodpecker; 66, Great Spotted Woodpecker; 67, Lesser Spotted Woodpecker; 68, Wry-neck; 69, Common Creeper; 70, Wren; 71, Nuthatch; 72, Cuckoo; 73, King-fisher; 74, Nightjar; 75, Woodpigeon; 76, Common Turtle; 77, Collared Turtle; 78, Pheasant; 79, Partridge; 80, Quail; 81, Golden Plover; 82, Peewit; 83, Heron; 84, Common Snipe; 85, Jack Snipe; 86, Land-rail; 87, Water-rail; 88, Moor Hen; 89, Little Grebe; 90, Canary; 91, Averdavat; 92, Chinese Grosbeak; 93, Quaker-bird; 94, Java Sparrow.

planted, so that the birds soon made themselves at home in their new habitation, and followed their natural instincts.

“ Of the class *Sylviadæ*, those which I had were for the most part brought up by my children from the nest, so that we had opportunities for watching their natural propensities, untaught by the parent birds. Kingfishers were also brought up and kept by me with the other birds, and in fact one nest of Kingfishers was confined, in a separate long cage, with two Hobby Hawks. These Hawks were brought up from the nest by my apprentice living with me at that time: he also had the care of the Kingfishers, which were fed on dace and gudgeon until they could manage for themselves; but it so happened that he forgot my Kingfishers, while he thought of his own Hawks, and I was astonished one day by observing, when he threw into the cage the meat cut up into small pieces, these said Kingfishers dashing down upon the meat, and, so great is the power of instinct, dashing the meat against the perches on which they alighted, as if to kill the imagined prey, and at length bolt it. This diet at last became as palatable to them as fish, upon which they were usually fed; and so tame did they become, that at any time if I held a piece of meat in my fingers, either in the aviary (in which they were afterwards placed) or against the wires outside, the birds would instantly dart at my hand and fly off, with the meat in their bill, to their roosting-place, which I observed was always particularized, if I may use the term, each bird having his separate roost. These were generally on boughs, so situated as to have a good view of the fountain, in which

I kept a plentiful supply of minnows: they would devour a prodigious quantity of these fish in the day.

“I have observed them take their food in the following manner: attentively watching the approach of their prey, they would suddenly, as if by a paroxysm, close their feathers more tightly to their bodies, and taking a short spring upwards, dash down into the water, which was a foot deep, and at the bottom of which the minnows lay. With unerring aim they would seize their prey, and float on the top of the water for a second, holding the fish across in their beak. On alighting on their favourite branch, they would strike it against the branch, right and left, for a few seconds, until the fish became stunned and quiet, when with a sudden catch the head is turned towards the gullet, and down it goes. The bird leaves the water without a feather being wetted, and after it has filled its maw, it then makes several dashes into the fountain, uttering a peculiar shrill cry, no doubt of pleasure, as if it were enjoying its bath. From thence it flies to its roost, and then becomes inactive for some quarter of an hour or twenty minutes, its feathers ruffled, and sitting all of a heap, sleepy and stupid. This lasts during digestion, which is very rapid; and as soon as it is completed, the bird is observed to be opening its bill very wide two or three times, and at length ejects a pellet, about an inch long, composed of bones, beautifully matted together, and not unlike a lump of Epsom salts (you see I cannot help comparisons, which are natural to me). This mass is perfectly inodorous, and forms, in the wild state, the nidus for the deposit of their eggs, in the holes to which they continue to resort year after year, for breeding

purposes. Their dejections are highly offensive, and are voided from them with considerable force; and this it is which gives to their nest the horrid and disgusting odour of which naturalists justly complain.

“If you have never brought up young Kingfishers, you would be astonished how large fish they are capable of swallowing. In feeding them I have often given them a bleak or a dace as long as their entire body, including beak and tail; and, in swallowing it, it seemed as if the fish encircled their whole body, while during the feasting they set up a peculiar burring sound, in which the whole nest joins, forming a not unmusical chorus.

“I have had as many as seven young birds in one nest, all of which I have brought up and kept until the following spring, when battles ensue amongst them, which are kept up incessantly until one only remains the victor, and all the rest have perished in the deadly conflict. I have watched them pursue each other until at last, by one grand dart, the one has transfixed the other to the ground, and flown away triumphant. This I have observed in several broods that I have successively brought up, but all with the like result, occasioned no doubt by a wisely-ordained instinct, that each might find its own separate location and dependence. The same pugnacious propensity is seen in many tribes of birds that have a voracious appetite, showing that a very wild field is required for their support.

“They obtain their prey evidently from sight alone, and I have often wondered how they have managed when the streams are constantly muddy from the frequent rains, for in confinement they will not bear starvation. It is said they feed on insects; I have

never observed them to do so in captivity, though, as before mentioned, they have resorted to the meat of the Hawk. Frequently have I observed them hawking or rather hovering for several minutes over the fountain, watching for food, and then suddenly dash to the bottom and rise again with the fish, and very seldom indeed miss their aim. *It is said* the fish are dazzled by the brightness of their plumage, but this cannot be; the dazzling portion being above, and the reddish-brown beneath, which only could be observed by the fish underneath, if the fish are observers.

“I am here reminded of a large Heron that I kept in this same aviary, which I used to feed on fresh herrings by throwing into the fountain half-a-dozen or so, which he would in a very short time devour. I then had seven Kingfishers, but I found one morning (I suppose I had not been sufficiently early with the herrings) one of my Kingfishers missing and nowhere to be found; the next morning another was gone, and in a day or two another. I never suspected the Heron, but while watching him one day I found in his dejection a quantity of feathers undigested, which upon a nearer view I discovered to be those of the Kingfishers; so without more ado I packed Mr. Heron off in a hamper to the Zoological Gardens in Regent’s Park, where he was left and his character together.”

Mr. Rayner’s observations of the selfish and jealous disposition of these birds as they approach the adult state, demonstrates the impossibility of keeping a multitude of them in captivity, so as to form a closely crowded constellation of ornithological stars. Whatever we do, the strongest will persecute the weakest to death. “Depart, and make room for me!” is an innate

piece of tyranny common to men, animals, and birds. It may be doubted whether even a pair of Kingfishers, male and female, could be kept together in confinement for a continuance. In a wild state they are seen singly, except during the breeding season and for a short time previous to it. But, as we must be content with a solitary individual, even that would be an ornament to a sufficiently spacious aviary. If it be necessary to feed it on large fish cut in portions, instead of entire small fishes, its health would be better maintained by the washing of each slice previous to giving it (as any stale food is proved to be so injurious), and also by allowing them to swallow the bones and scales together with the portions of fish, and even the little bits of fur attached to any meat that may be given them; the object of this would be to keep up the occasional casting of pellets and rejectamenta from the stomach, which is usual in a wild state. All birds which have this habit when at large in their natural haunts, require to have it promoted if they are to continue healthy in confinement. Captive Kingfishers that have acquired their full strength, may best be fed by supplying them with minnows and small fry in an open glass vessel, such as a Gold-fish globe cut down; though their owner may probably prefer to exhibit their tameness by making them take food from the hand. Or something elegant could be designed as their feeding-place in the shape of an elevated glass cistern, with a little fountain perhaps, in the centre of their aviary. It might contain a few branches of coral, lumps of agate and cornelion, gold-fish, tadpoles, newts, the larvæ of gnats and dragon-flies, or any other interesting objects that are usually found in fresh waters.

The mention of insects as an occasional diet of our

Kingfishers reminds us of some of the foreign species, called by Mr. Swainson Kinghunters, and by the French Martin-chasseurs, which are as great lovers of dry places as our own is of wet. Mr. Charles Darwin, in his "Journal of the Voyage of the Beagle," says—"It had not now rained for an entire year in St. Jago. The broad, flat-bottomed valleys, many of which serve during a few days only in the season as water-courses, are clothed with thickets of leafless bushes. Few living creatures inhabit these valleys. The commonest bird is a Kingfisher (*Dacelo Jagoensis*), which tamely sits on the branches of the Castor-oil plant, and thence darts on Grasshoppers and Lizards. It is brightly coloured, but not so beautiful as the European species: in its flight, manners, and place of habitation, which is generally in the driest valley, there is also a wide difference."*

The most wonderful Kingfishers yet discovered are those brought to light by Mr. Gould, in his only too superb and costly "Birds of Australia." He says that these birds appear to be endowed with the power of sustaining and enjoying life without the least supply of water, that element without which most others languish and die. Mr. Gould believes that water is not essential to their existence, and that they seldom or never drink; and instances the Halcyons, which he found sustaining life, *and breeding*, on the parched plains of the interior during the severe drought of 1838-9, far removed from any water. They feed almost exclusively upon animal substances; small quadrupeds, birds, snakes, lizards, and insects of every kind being equally acceptable. Strange! that among creatures so closely allied, and bearing such a striking family re-

semblance as the Kingfishers do to each other, one species, our own, should be almost bound to the vicinity of brooks and streams; whilst others, equally occupying their allotted place in Creation, and fulfilling the office assigned to them by Providence, should be able, in order to perform that task, to dispense with what is usually considered the necessary element of water, except just the few thimblefulls of liquid contained in their living prey, that are absolutely requisite to keep their animal fluids circulating. The creature that can live through these fierce Australian droughts, respecting which see the late "Volumes of Adventure," *passim*, is not far from being the feathered representative of the fabled salamander, and would not have found itself very uncomfortable had it joined M. Chabert in his little retirements into a heated oven. The act of perspiring must be a function as good as unknown to it. Who, after this example, can pronounce that the moon is uninhabited, even though it have neither seas nor atmosphere?

Two of these birds rejoice in the title of "Laughing Jackass." The smaller, *Dacelo cervina* (Gould), inhabits the north-western parts of Australia. It speaks a different language, and its noise is by no means so ridiculous as that of *Dacelo gigantea*, the Jackass *par excellence*, which inhabits exactly the opposite region, namely, the south-eastern portion of the Australian continent. Captain Sturt, while tracking the course of the Morumbidgee and Murray Rivers, mentions that the cry of this Kingfisher, "which resembles a chorus of wild spirits, is apt to startle the traveller who may be in jeopardy, as if laughing and mocking at his misfortunes. It is a harmless bird, and I seldom allowed them to be de-

stroyed, as they were sure to rouse us with the earliest dawn.

“ I shall here particularize the routine of one of our days, which will serve as an example of all the rest. I usually rise when I hear the merry laugh of the Laughing Jackass (*Dacelo gigantea*), which, from its regularity, has been not unaptly named the Settler's Clock ; a loud cooe then roused my companion.”

The Zoological Society possessed this summer (1850) a Laughing Jackass in full feather and high spirits. We had the pleasure of seeing and hearing this strange creature giving vent now and then to its risible fit, as if it saw something in the appearance of some of the visitors to the Gardens of which it could not help expressing its contemptuous opinion. It is an ugly-plumaged fellow, with nothing to be proud of on its own part—a sort of gray bird with white interspersed, and the family feature, an enormous bill ; but coming from the antipodes, and having such a remarkable name and habits, it seldom fails to attract the notice of those who have any suspicion what bird it really is.

CHAPTER VI.

THE GRALLATORES, OR WADERS, IN CAPTIVITY.

Their tameable disposition.—Fallacy of generalizing too much.—The White Stork and the Black.—Gigantic Indian Cranes.—Cruelty the companion of ignorance.—Strange forms well contrived.—The Lapwing and the smaller Waders.—The Common Crane.—The Stanley Crane.—The Spoonbill.—The Common Heron.—Dr. Neill's Heron.—His proceedings, and attempts to breed.—Unfortunate end.

WE should hardly, on a first glance at the Waders, expect to find among them a great number of confiding, friendly, and easily tameable birds; and yet, if we select the individuals from each order to whom these epithets may be applied, we shall be able to make as long a list from the Waders as from any other, even the Rasores, in which the domestic fowls are included. The Grallatores alone would prove the little dependence there is to be placed upon Mr. Swainson's rasorial and other types, as any guide to the *instincts* of a little known creature, whatever index they may be to analogies of form. It does not follow that because the common fowl is eminently domestic, all other gallinaceous birds should be equally so. The pheasants furnish a sufficient refutation of this notion. And if the Rasores themselves are not universally docile and attachable in their tempers, how can any opinion be ventured, before actual experience, respecting their supposed representatives in other orders?

It is very amusing to those who have actually kept

living birds to find scientific naturalists (for whom we entertain all due respect) recommending us to patronize and protect certain species, as if they had no instinctive will of their own. We are to encourage this, and domesticate that, exactly as *we* choose to domesticate and encourage them: *their* consent to the arrangement is taken for granted, although we have plenty of hints that they do make a point of being consulted. We have condescendingly permitted many of the Waders to approach us in confidence; but the Bittern still prefers his swamps to any comforts that we can offer him. So that a general rule is as inapplicable to the Grallatores as to the gallinaceous birds,—or, to the entire race of man and woman kind.

A great deal both of this mathematical distribution of the animate creation into “circles,” and of precise series-making in Natural History, is very absurd, if we look at it closely. “With the Penguins, Nature is about to pass from the birds to the fishes.” How pass? Change the feathered fowl itself to a scaly swimmer? modify lungs into gills, flappers into fins? Beautiful imaginations!—perhaps unreasonable talk. There is certainly in each a common adaptation to the same element, and therefore some resemblance and analogy; but where can we show the passage, or act of transition? And the change of natural instincts is often as difficult to demonstrate as the metamorphosis of bodily form. The leopard cannot change his spots (even though he be a black leopard) nor the Ethiopian his skin: the sow returns to her wallowing in the mire. Even all Waders are not alike in disposition; nor can we make them so.

The White Stork appears to be one of the most

domesticable, and therefore, to us, most interesting of its order; although, when we recollect, there are several of its near relations that are extremely familiar and submit readily to captivity, besides others that are less closely allied,—the Ibis, the Curlew, the Lapwing the Oyster-Catcher, Ruffs and Reeves, &c. Buffon, whose accounts of the habits of birds are much more valuable than his ideas of their mutual relations, remarks that “the Black and the White Stork are exactly of the same form, and have no external difference but that of colour. This distinction might be totally disregarded, *were not their instincts and habits widely different.* The Black Stork prefers desert tracts, perches on trees, haunts unfrequented marshes, and breeds in the heart of forests. The White Stork, on the contrary, settles beside our dwellings; inhabits towers, chimneys, and ruins: the friend of man, it shares his habitations, and even his domain; it fishes in our rivers, pursues its prey into our gardens, takes up its abode in the midst of cities, without being disturbed by the noise and bustle, and, ever respected and welcomed, it repays by its services the favours bestowed upon it; as it is more civilized, it is also more prolific, more numerous, more dispersed, than the Black Stork, which appears confined to particular countries, and resides always in the most sequestered spots.”

Everybody will remember the gigantic *Grallatores* of India—the Marabous, &c., which are almost as much at home in human society as dogs and horses, fulfilling their office of living muck-carts of all sorts of offal. English residents have been said to exert upon them that habit of mischief which phrenologists affirm to be a peculiar manifestation of destructiveness, by

throwing down to them a marrow-bone, charged with gunpowder, and carrying inside a lighted match. The point of this fun comes when the explosion takes place within the stomach of the bird. We may be excused for blowing up a whale with a congreve rocket, as a less hazardous, and, perhaps, more merciful mode of securing *our* prey; but such barbarity to an inoffensive Stork is on a par with the cruelty of the blacksmith, who, for a wager, induced a duck voluntarily to swallow, in its hasty greediness, a piece of red-hot iron that he tossed to it among some lumps of raw meat. It is surprising how cruel thoughtless and ignorant people can be. A sergeant returned from India has told me with high glee, that one of his amusements there was to bore a smallish hole in a few cocoa-nuts, partly fill them with sugar, and throw them on the ground in the woods. The monkeys would contrive to insert their hands after the bait, and while unable to disentangle themselves, were *whipped to death* by the holiday-makers. And yet this man professed to be a sincerely religious person; only he forgot that monkeys could feel like himself. This digression may be *mal-a-propos*, and yet productive of good in the end.

Creatures of so strange an aspect as the Waders, with such oddly-formed members, are yet provided with these curiously-modified limbs for a special purpose. If any one feature had been made less exaggerated, less ridiculous to the vulgar eye than it is, the united working together of all to one end, viz. the sustenance of the bird, would to that degree have failed. When a Heron or a Stork alights upon a marsh, fishes and frogs may well call out, like little Red Riding Hood at the sight of the Wolf, "What are your great flapping wings

for?"—"They're on purpose to come to visit you with." "What are your long thin legs made for?" "They're meant to walk into the water after you with." "What are your great round eyes for?" "They're made to look close after you with." "What is your sharp long beak made for?" "'Tis sharp to catch and swallow you with."

Not all of this family of birds are thus destructive to creatures that we can much sympathize with. The Lapwing forms a most useful and engaging garden pet, by clearing off great numbers of slugs, grubs, and insects; but its history is almost sure to be tragically ended by its falling a victim to the nocturnal prowlings of cats. Pinion it, feed it well, and give it a little retiring place in which to hide itself, and it will be happy as long as its life is spared. Its diet consists of worms in the first place, second to which comes chopped meat, and even bread and milk. It eats a large worm in clever style; taking it firmly by one end, probably the head, and working it down smoothly and gradually, exactly as a Neapolitan is said (for we saw no such performance at Naples) to take in a yard or two of Macaroni, without dividing its continuity with his teeth. It has also a curious habit of forming a small beaten path,—we may guess how wide would be the road trodden smooth by a Lapwing's feet—to and from its night-box and other favourite spots. It would be of great service kept in numbers in the gardens of the metropolitan squares, by eating the grubs of the destructive daddy-long-legs, and would save many and many a rod of turf from having to be relaid; but in such a spot it would require an army of night and day protectors to save it from its feline enemies. London cats are a

legion of hydra-heads ; destroy one knot of ravagers, and another forthwith starts to supply its place.

I cannot agree with those who place the Lapwing high in the list of edible birds.

“Qui n'a mangé de Vanneau
Ne scait pas ce que gibier vaut,”

may be a true proverb in a country where Pheasants and Partridges are shot on the nest to be roasted afterwards* : but no lady, I hope, who, on the strength of these words, shall admit a pair of captive Lapwings into the sacred inclosure of her flower-garden, will cease to be pleased with their engaging and serviceable ways, as long as she can baffle the jealousy of Puss.

Indeed, the whole tribe of the smaller Grallatores are appropriate and amusing inmates of the turf-floored aviary, where they are secure from the attacks of any overbearing enemy, either beast or bird. Ruffs and Reeves may be specially mentioned : their plumage is so frequently changing its style ; the fashion of their dress varies so rapidly ; and no two birds are scarcely ever alike. The main requisites to keep them, and such like, in health, are, besides their grassy floor, a pan of mould well replenished with earth worms, and in defect of them, with chopped meat, and a pan of water to dabble and play in. A very small space will suffice for not a few individuals.

Mr. W. Rayner has had several of them in his possession. “The Golden Plover,” he informs me, “I kept only for a short space of time. I had only one or two of these birds, which were shot in the wing.

* See that amusing book, “O'Connor's Field Sports of France,” for the way in which game is treated there.

The time I did keep them, they fed on worms and insects and slices of meat cut to resemble worms ; they however soon died, whether from the effects of amputation of the pinion, or for loss of liberty, or want of proper food, I cannot tell. The Peewit I have kept with no difficulty along with the rest of my birds. It fed on bread and milk and crushed hemp-seed mixed together, as well as on meat and worms. I had also one running about my garden, which maintained itself, the wing being cut on one side, until it was destroyed by some neighbouring cats. My common Snipe and Jack Snipe were both shot as the Plover ; these I kept for some days on worms and insects, and was pleased at the exquisite sensibility perceptible at the end of the bill, by means of which it felt for and seized the worms, and devoured them whole immediately on prehension. I imagine these birds died from an insufficiency of worms ; they did not take kindly to their bread and milk, upon which the Water Rail, which I kept for years, did so well. I observed that the Peewit would run several steps, and then stop and stamp, as it were, upon the ground with the seeming intention of terrifying some insect from its hiding-place, as, upon doing so, it eyed the ground beneath it with considerable intentness. I had a couple of birds brought me, which were caught by my bird-catcher by the side of the river on a quantity of mud that had been thrown out. These I kept for a considerable time, principally on bread and milk, and occasionally worms and what other insects they could find. I called them the Grey Phalarope ; but what they really were I never could tell, not having at that time any book by which I could with certainty define them."

The common (or, as it ought to be called in England, the uncommon) Crane, is a very ornamental bird for the lawn or pleasure-ground. It walks about with a peculiar feminine elegance and consciousness of grace. But it is apt to be cross, and not to be trusted with children or strangers; and where it does choose to manifest a dislike, its bill is really a formidable means of offence. It is also expensive; good specimens fetching 10*l.* or 12*l.* each. A still more beautiful creature to occupy the inclosed paddock, and of gentler manners, is the Crowned Crane, also a costly pet. But altogether the most remarkable of these birds is the Stanley Crane, which has long drooping feathers pendant not only from its tail or train, but from its wings also. These have regularly bred at Knowsley for the last few years; but I am not aware that they are in the market, or to be had at all, except by those persons to whom Lord Derby chooses to grant the favour of communicating the superabundant progeny of his stock. The common Spoonbill is a very tameable and gentle creature, and feeds on the same diet, and is suitable for the same situations as the White Stork. It is not a high-priced bird, and might almost be naturalised amongst us, were it not for the persecutions of "stuffed specimen" hunters. The usual end of those kept captive in gardens or pleasure-grounds is, to fall victims to the cruelty of boys and other mischievous bipeds. The Purple Heron is a shy and slippery character, which makes his handsome appearance of less value. But the common Heron has sufficient beauty of plumage, in the adult state, to make him worth keeping, where facilities exist for supplying him with his proper food. At the Birmingham poultry show in December,

1849, a bird of this species was exhibited, that had been hatched and brought up by a hen, *together with a brood of chickens*. It was in the same cage with its foster-brothers and sisters, and suffered them to take their share of the animal food that was given to it. The Heron is most easily kept: not only refuse fish, but rats, mice, dead birds, &c., afford a welcome repast. It is as easily attainable: young birds from the nest are to be had at a cheap rate in most localities of England. It may be considered as a typical representative of a considerable number of species (including the Egrets); and the following original account of its conduct in captivity, which I owe to the kindness of the venerable Dr. Neill, will probably be acceptable to the reader:—

“In the end of 1821, Mr. Wilson, janitor of the College, presented to me a cock Heron, which had been slightly winged on Coldingham Mere in the autumn, and kept alive in one of the College cellars for several weeks. It was evidently a young bird, just beginning to assume the plumage of the male, and was readily tamed under the judicious treatment of my servant, Peggy Oliver (honourably mentioned by Audubon in his “Ornithological Biography.”*) During a severe snow storm in February, 1822, the bird remained at large in a shed behind a greenhouse, often sitting not far from the stoke-hole of the furnace, and never offering to go out of the shed. In the following spring he gradually visited all parts of the garden, and chose as his regular roosting place the stem of a very large Bedford willow tree, which reclined on my boundary wall, and the spreading branches of

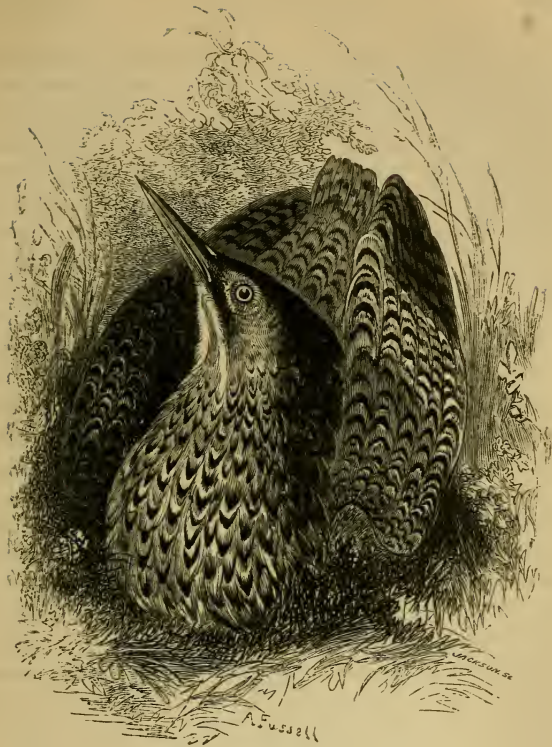
* Vol. iii. pp. 312–13.

which overhung Canonmills Loch. Although the injured wing had completely healed, yet it hung a little, and the bird seemed sensible that he could not effectually fly off, or provide for himself. He therefore remained wholly at large, running with expanded wings to Peggy when he expected food. The food consisted of such fish as could be procured, haddocks, flounders, herring cut in pieces; and sometimes, in default of fish, of bits of raw bullock's liver. He often followed me through the garden, in expectation of being treated to a bit of soft cheese, of which he was very fond, and which I generally carried in the pocket of my morning coat for the benefit of the other pets. He accepted a bit of loaf bread, if he found that I had nothing else to give him; and when he experienced difficulty in swallowing the bread, I have repeatedly admired the sagacity and gravity with which he marched to the pond, and dipped the morsel in the water till it was sufficiently softened. I once saw him kill a rat. The rat was busy stealing a portion of the food laid down for the Heron, when he raised his head and wings, and inflicted a single blow of his bill on the head of the depredator, who gave a shiver, and died. During the first season the Heron picked out every perch which I had in my small pond; not a frog nor toad were left in the garden, nor have I seen one ever since; and he extirpated a breed of the large edible snail (*Helix Pomatia*) which the late Dr. Leach had sent me from Somersetshire, and which had multiplied in the crevices of a rock-work. In the volume of Audubon above referred to, you will find an account of a Great Black-backed Gull which was in the habit of annually going off in the breeding season, and returning to Canon-

mills for the rest of the year. [That distinguished Ornithologist repeatedly visited the Gull, and also the Heron here spoken of.] On one occasion I had the opportunity of remarking that, when the Gull and the Heron first met in my garden, after the absence of the former for some months, they evinced no shyness, but on the contrary rather indicated by their motions that they mutually recognised each other.

“ Early in the spring of 1828, the late Mr. Allan, of Lauriston Castle, sent me a female Heron, which had been slightly hurt, and blown into his grounds at the sea-side during a violent gale, and caught by his gardener. It was tied by the leg; but I immediately removed the ligature, shortened the quill-feathers of one wing, and placed her at large near the other bird. After a few cautious approaches, they soon associated, and the new comer showed no inclination to escape. Somewhat to my surprise I observed that they paired in the following season. They formed a very rude nest on the top of my garden wall, the base of which was, at that time, washed by Canonmills Loch (now drained by a railway company). The hen laid either three or four eggs, I am not sure which. By some strong wind or other accident the nest and eggs were swept into the loch. The hen then laid three other eggs, in a shrubbery border, in a rough nest of sticks which they had collected. It was very near a door which opened from the garden into the loch, and was placed close by the box edging of the walk. When the gardener was drawing water from the lock, the hen never moved; but when strangers happened to approach incautiously, she suddenly flitted off the eggs, and in this way two of the eggs were broken. We then put

in a couple of Bantam eggs to keep up the appearance. The hen continued to sit, being occasionally relieved by the cock when feeding. Unfortunately she had one day waded (or swum, for to some distance the water was too deep for wading) to the exposed margin of the loch, near the high road, and was there killed by some boys; and my expectations of breeding a Heron were thus frustrated. The cock continued to sit till the afternoon of the next day, when he seemed to tire of the duties of incubation, and finally abandoned the nest. The solitary bird lived for a number of years, going perfectly at large, except during severe snow-storms, when he readily submitted to confinement in an outhouse. Having crossed the loch in 1838, he unluckily fell in with some lads unacquainted with his habits, and shared the fate of his mate."



Bittern in its attitude of defence.

CHAPTER VII.

THE BITTERN.

Its temper.—Voice.—Nesting habits and haunts.—The Marram banks.—The district which they skirt.—The Bittern: its home.—Money value.—Mr. Jecks's Bittern.—Its manners in captivity.

THE Bittern is a remarkable bird. He differs much from the tameable Herons. The sportsman reckons

him a first-rate addition to the game-bag; the peasant listens to him by night as to some unearthly creature; and there is no little superstitious consideration attached to his history. Those who believe in the transmigration of souls—and some people will not eat crocodile through unwillingness to digest a slice of their own grandfather—regard the Bittern as having owed the spark of life to an idle servant, named Ocnos, who was punished for his laziness by this metamorphosis. Ocnos continues to be of but little better domestic use or profit in his second than in his first character, except when artistically roasted, or skilfully mounted in a glass case. The Bittern is as provoking to his master's forbearance as was Ocnos; nay worse, he is even dangerous. Although Aldrovandi does say, "*Sed et cicurari facilè puto, ut cæteras quoque Ardeas,*"—that he may be easily tamed, like the rest of the Herons,—it will be better that the point of his bill should never be permitted to come within a yard of one's face, especially when he is out of temper, or reproached with the indolence of his good-for-nothing prototype. We will not say a word against the other long-legged gentlemen, but doubt whether the learned physician of Bologna ever tried his powers of fascination upon this individual. Some nations call him "the Bull," from his roaring "an it were a sucking dove," and certain etymologists derive his English name from his imitating the *boatum taurorum*, or bull roaring. The old Polish title "Bunck" is tolerably expressive. Sir Thomas Browne, who not only was well acquainted with the haunts of the bird, but kept one in captivity, says, "the Bittern in his common note, which he useth out of the time of coupling and upon the wing, so well resembleth the croaking of a raven, that I have been deceived by it."

The Bittern is still found occasionally,—not too often, in Norfolk. It breeds there, and seems to rear its broods of young on a very odd principle. The Rev. R. Lubbock, in his “Fauna of Norfolk,” says that, in two cases of four young in one nest, two were apparently much older than the others : so great was the difference, that one pair were more than half-grown and nearly fledged, and the other pair covered with nestling down, and but a few days hatched. So that they would appear to make a second laying before the produce of their first eggs is reared, after the manner of Pigeons, only the last eggs are deposited in the *same* nest. When obtainable, the Bittern is usually procured from a small but naturally marked district of the county, the coast boundaries of which are terminated by Winterton and Happisburgh respectively. It may also inhabit the curious region lying along Weyborne, Cley, Stiffkey, Wells, and Burnham—the last well known as Nelson’s birthplace ;—but the specimens that one hears of all come from the first named tract of *quasi* land, a good deal of which answers to Milton’s description of a certain district of chaos, being

“ A boggy Syrtis, neither sea,
Nor good dry land.”

The whole beat, containing many extensive parishes, lies low, in fact scarcely, if at all, above the level of high spring tides. Fifty years ago, it was a tender, barely treadable swamp, the old churches and few farm-houses being built wherever there might happen to be the most solid foundation for them. I am not geologist enough to say whether it is in a state of gradual subsidence or elevation ; at Palling there is to be seen at

low water a stratum of very old peat either stretching into or encroached upon by the sea, and the foundations of Eccles Church, now in ruins, are not out of the reach of high tides. But if some huge subterranean monster could set up his back, and by a gentle heave raise the whole district a few feet above its present elevation, it would be a capital thing for the landowners, and at the same time a sure notice to quit to many objects of natural history that are still to be found there. The sea has sometimes made its inroads on these low lands, though they are well guarded against it now; and it has then taken pastures some time to recover from the effects of the influx of salt water. The fence which keeps the greedy waves of the ocean from licking up this prostrate victim, that lies before it apparently quite ready to be devoured, is not of human construction or contrivance, though we do all we can to aid what we call "Nature" in the matter. There runs along this part of the coast a line of sand-hills known as "The Marram Banks." Something of the kind may be seen in the sandy dunes near Calais. "The Marram plant" is the local name for a species of reed (*Arundo arenaria*, the true Marram; though *Elymus arenarius* and *Carex arenaria* assist in forming the plant) which grows solely on these desert sandy salt wastes, among the sparse blades of which the Rabbit plays its gambols, and the Shieldrake *used* (for it is gone) to rear its young. As the winds drift the sand from the beach, it gets arrested in these tufts of Marram, like snow in a hill-side clump of heather. The little hillock of sand soon increases and spreads fast: for the Marram grows the more, the more sand there is for it to grow in. And again, still the more Marram, still the more

sand is stopped as it runs along the ground. And so a natural mound is upraised, just above high-water mark, capable of affording security to thousands of acres and hundreds of human lives; all through the agency of a wiry, glaucous, sapless, good-for-nothing-looking weed. Scores of people would stand on the Marram banks, enjoy from their elevation the glorious prospect of glittering sea and fertile fields, and would pluck a handfull of tiresome monotonous weed, and say "What is the use of all this rubbish? 'Tis good neither for pasturage nor seed. Why don't they grub it up and try if something better will not grow in its place?" But when any failure of this sandy rampart does occur, in what are called "Sea Breaches," great is the tribulation among—and something the rate upon—the adjoining property. Bushes, faggots, hurdles, &c., are made to do badly the delicate job of checking the blowing sands, which before was so well performed by the wretched much-despised weed. The wall of sand is not like the wall of China; it is cemented together by a net-work of living fibres; destroy them, and the whole mass is blown to the winds, and the raging, roaring enemy admitted in a briny deluge.

The drainage of this Bittern preserve is as curious as its sea boundary. Marsh-mills, *i. e.*, pumps worked by wind-power, raise the superfluous water into channels that are considerably elevated above the pastures which they thus drain; and the stagnant pools are in this way made to run up hill, as it were, by a circuitous route, and escape, contrary to apparent possibility, into the German Ocean, through the Haven's mouth at Great Yarmouth. Its surface is sometimes diversified by large shallow, and yet mostly bottomless

(on account of the mud) pieces of water, called "Broads." They are fringed with beds of reeds and rushes, and the distinction of lake and land at their margin is but ambiguously defined. For the sake of the litter which the rank herbage of their banks and shallows afford for cattle, they are annually mowed by men *in boats* (not *boots*), who carry off their aquatic hay-harvest in barges instead of waggons.

Here we have the home of the Bittern, and after our description the reader will not be surprised that its nest and young should so seldom be found; for many of these marshy coverts are impenetrable to boats, and the deep muddy bottom prevents all search by wading. A winged sportsman would be the only one likely to succeed. Itself is enabled to walk on the treacherous morass by feet and claws of a peculiar construction. Had the Bittern feet like the Emeu and the Ostrich,



Foot of Bittern—one fourth natural size.

or even like the Stork, it would sink, and become inextricably bog-foundered in haunts to which it trusts for safety; but by means of the long claws which stretch out from its spreading toes, it is enabled to tread securely on the floating platform of reeds and rushes.

In the fen districts of Cambridgeshire a harmonious couplet expresses a high estimation of the ancient marketable value of the Bittern :—

“ Be she lean, or be she fat,
She bears twelve pence upon her back.”

But the progress of Epicurean taste has not kept pace with the diminished value of money. In March 1849, on going to the person with whom I usually deal in Norwich fish-market, I saw a Bittern hanging at a shop a few doors off. I sent to inquire the price, was asked 1s. 6d., and bought it, as it was fresh and in good condition. The seller afterwards informed me that it had been shot at Ludham. He was astonished when told that the bird was good to eat, and I doubt whether he will again sell a Bittern for eighteen pence, without first trying one for his own supper, as a cheap experiment, in default of a more profitable customer. The specimen, however, had hung unpurchased throughout the previous market day, Saturday. On bringing home my game, it proved to be a young male, in tolerably perfect plumage. Its weight was 3 lbs. 6½ oz. The stomach was empty. The feet and claws were remarkable, and must be formidable weapons when the wounded creature lies kicking on its back.

For an original account of the Bittern in confinement, and what may be expected of him as an Aviary bird, I am indebted to the kindness of Charles Jecks, Esq., of Thorpe, near Norwich.

“ Our Bittern was brought to us by a wherryman, about six years ago, in an unfledged state, having been picked up in one of the marshes by the river near Yarmouth. When I received it, it was exceedingly shy,

and would not eat for some time; but finding it swallow a few small fish after a few days had elapsed, I thought there was some chance of its living, and immediately constructed a sort of house for it, by parting off a portion of a flower-border with wire netting, and placing a large sod of thick grass in the far corner, and a basin of water, which was refilled every other day. The inclosure had a wall on the north and west sides; the south divided him by a gravel walk from a fine brown Eagle, which, like the poor Bittern, had been removed from his early home before he had any feathers; and on the east side, a couple of tame Hawks were shut up in a cage similar to the Bittern's.

“As the bird's strength increased, he would make occasional attempts to break the meshes of the wire, but ultimately gave it up, and kept himself quiet in his grassy nook, except when disturbed by any one coming near him, when he would draw his neck and head down between his wings, sit on his haunches, and snap his beak loudly and quickly, as a warning to come no nearer: at one or two of my family, and they the least likely to annoy him, he would spring forward with open beak and crest erect, but proved himself an arrant coward, when they stopped and looked fixedly at him. He would then slowly retreat, facing the enemy all the while, till he gained his place of security, where he would snap his beak most viciously. This was his usual habit; even when fed, he made a feint of catching the man by the leg, but never did more than affect an attack. He never showed the slightest attachment to any one, though he could discriminate between individuals (as in the case of particular dislike to my wife and daughter), but was invariably prepared to defend himself, as

if anticipating an attack. We generally got fish for him, but when that was impracticable, he would eat anything that was given to him, swallowing little birds entire, feathers and all. He would not refuse a rat, though he could only swallow it by slow degrees, the gullet distending to an amazing size. During the five years we had him, he seemed to enjoy perfect health, with one short exception—a swelling or hard tumour in the neck, which was cut out, and he resumed his usual condition.

“I fear there was some neglect in the severe winter of '47. The only change in his accommodation was hanging a mat in front of his inclosure, and this was omitted for several nights. One morning he was found dead, and on examination his craw was well filled with food, and his condition good; no cause for death being found, the coroner, the man who always fed and attended him, brought in a verdict of died from cramp in the stomach!

“I do not think he was much regretted; his unsocial, unloving disposition gained him no friends; he certainly has found more admirers in his present quiet, beautiful state of preservation, in which he maintains his usual position of defence, than he ever did with ruffled plumes in life. The attitude is a crouching position, in appearance something like that of a hen brooding her chickens, though in intention more analogous to a serpent coiled preparatory to his spring. Indeed, when stretched out at length, as was his wont, he bore no little resemblance to one of the serpent tribe.

“During the calm summer nights, I was frequently awoke with his very peculiar cry or boom; this call was continued for about two months, June and July, and

nearly all the night—‘boom!’—‘boom!’—in a loud yet pleasant tone. Some Owls that were confined near him also did now and then to the moon complain, on which occasions the Bittern would swell his voice to its utmost power, trying to drown their more feeble cry; but when the Eagle at an earlier period of the year shrieked its desire for companionship and liberty, the Bittern never noticed him, though during the months of January and February his cry in the night is somewhat startling.

“I think we had a Bittern nearly five years. Our Eagle we have had eight or nine; he was brought from Nova Scotia by a timber ship; the captain kept him in a crate, and when brought to me had only a few wing feathers appearing: he is a noble fellow, and is looked on with as much affection as any of my domestic pets.”

CHAPTER VIII.

THE WHITE STORK.

A model of virtue.—Ancient instances and modern explanations.—Gratitude.—The charm of ideality.—Captive Storks best in pairs.—The Dutch and English modes of pinioning.—Delight at liberation.—Jealousy, muteness, and politeness.—Mode of fishing.—Diet.—Services rendered.—Sad misadventure.—Habits in captivity.—Congregation of Storks in Sweden.—Antiquated notions.—The Stork's departure and return.

“WHO teacheth us more than the beasts of the earth, and maketh us wiser than the fowls of heaven?”*

Good lessons are to be learned of the Stork. According to Aldrovandi, Gratitude, Temperance (though one hardly sees how that can be), Chastity, Parental and Filial Affection, are virtues attributed to it of yore. The old birds, when weak and infirm, are believed to be sedulously fed by the young, in honourable remembrance of which, the *Lex Pelargica*, or law compelling the maintenance of parents by their children, derived its title from the *πελαργός*, or Stork. This, say ancient authors, is the ground of the respect and forbearance with which they have been treated, first by the Egyptians, and subsequently by modern nations.

The Stork foresees the imminent storming of cities, and departs before the enemy enters. This fact cannot be doubted, if the besiegers happen to be hard at work in the month of August. Its prudence is manifest in always leaving and returning to its summer haunts

* Job xxxv. 11.

stealthily by night. Its order and punctuality are equally admirable: "The Stork knoweth her appointed time," and keeps to it, and travels in the form of a disciplined army, not of a disorderly rabble. "The Stork," says Plutarch, "though neither sheltered nor fed by us, nor bound by any protection or assistance, still pays a rental for the spot it occupies by destroying the reptiles which are noxious to us." Another author* mentions a payment of a more precious nature. "The Stork returning year by year to the same nest, throws out to the lord of the place one of its young ones ready plucked, by way of tribute; nay, even it is commonly said, it also makes an offering of a tithe Storkling, satisfying in this manner *every* just demand, in token of which it refuses both to dwell in and to enter Thuringia, where tithes are not paid, as experience teaches." Perhaps they are equally scrupulous about church rates, the shabby resistance to which may have disgusted them with certain localities in England, and rendered their rare visits to this country still fewer and more far between. However, such is the notion; although it is suspected that the Stork has perhaps tossed out of the nest dead birds that it has been unable to rear. The creature too has its political prejudices, though it adheres to them no more firmly than other liberal wanderers, who are glad of a comfortable home, even within the boundaries of a monarchy. "That Storks are to be found," saith Sir Thomas Browne, "and will only live in Republics or free States, is a pretty conceit to advance the opinion of popular policies, and from Antipathies in nature, to disparage Monarchical Government; but how

* De Rerum Naturâ, quoted by Aldrovandi.

far agreeable unto truth, let them consider who read in *Pliny*, that among the *Thessalians*, who were governed by kings, and much abounded with serpents, it was no less than capital to kill a Stork.* Be all this as it may, the gratitude at least of the creature is exemplary.

A Stork's leg was broken by a stone: some women saw it limping, doctored it, and cured it*; by-and-by it departed with its comrades. In the spring of the year, when it returned (and it was known to be the same bird by its halting gait), the women were delighted to see their patient once again. It immediately came and laid at their feet a precious and resplendent gem, which it dropped from its long bill, and which they understood as intended for a proof of gratitude. It is not recorded whether the ladies quarrelled about the possession of this jewel, and therefore we may presume that they did not; but *Ælian* relieves us of the difficulty by relating the event as happening to *one* woman, and the tale must be true, as he gives the name of the person, *Heracleis*, and of the town where she lived, *Tarentum*, though he leaves us in uncertainty which leg, the right or the left, the Stork had the misfortune to get broken.

Another Stork made a less costly return for services rendered; it had its nest on the house-roof of a certain citizen of *Wesel*, in which for many years it hatched its eggs and reared its young according to custom. This bird having experienced the favour of its benevolent

* These ladies would have been interested to hear of another case. "This night I walked into *St. James his Parke*, where I saw many strange creatures, as divers sorts of outlandish deer, guiny sheep, a white raven, a great parot, a storke, which, having broke its own leg, had a wooden leg set on, which it doth use very dexterously."—*Journal of Mr. E. Browne* (Son of *Sir Thomas*), p. 50.

host for so long a time, and been free from all molestation by the servants (through the commands of their master), used every year to fly away, and return again to occupy the same nest; but this creature had a custom something beyond the other birds of its race, whether it were taken with the humanity of its modest and frugal host, or with the convenience of the spot and the buildings, or whether, as is more probable, its own nature led it to this; but twice a year, namely, in spring and autumn, the day before it departed and the day after it had returned, it used to fly round about the entrance door of its host's house, and with a clattering of its beak present itself on its arrival, always with a joyful, and as it were applauding gesture; and having had a word from the master, considered itself as dismissed. After these compliments had passed for many years between the bird and its host, at last, when about to migrate in autumn according to custom, it seemed, after rattling its bill and bustling about, to take its leave in a somewhat unusual and boastful manner. The master wished it a pleasant journey and a safe return. On its arrival in spring, the creature makes its wonted salutation before the house door by rattling its bill, and shortly lays at the feet of the man, as if in congratulation, a large root of fresh ginger which it produces from its throat. The host wonders at the foreign and rather ill-looking present, accepts it, and shows it to the neighbours, who are convinced by tasting it that it is a true and green root of ginger; and, although it has hitherto been doubtful, and to a degree unknown to many persons (among whom is Pliny), what place Storks come from and return to, it will be clear from this fact that when they fly away from us, they make

for those hot and outlandish countries where ginger at this day is said to grow ; but, by this example, such as it is, we are admonished of this at least, if of nothing else, that kindness and hospitality ought to be highly esteemed among men.

Another most elegant tale, continues good Aldrovandi, about the gratitude of these birds is extant in Oppian. It is reputed, he says, in Italy, that when a certain serpent, creeping to a Stork's nest, had devoured their young, and again had similarly destroyed the progeny of the following year, the Storks, on their return the third year, brought with them a new bird never seen before, which was not so tall as the Storks, and had a large bill as sharp as a sword. The calamitous case of their offspring had been communicated to it, and it had been induced either by promises or persuasions to render them assistance ; for, whether birds and other animals can interchange with each other the conversation which is unintelligible to us, may be pronounced doubtful. This bird was not intimately connected with the Storks till their laying was ended ; but when the young were hatched, and the parents had to fly to a distance to procure food both for them and for the guardian bird, it never quitted the nest, in order that it might resist the serpent. The serpent, therefore, soon afterwards stole from its hiding place, and attacked the Storklings, and though the guardian bird assailed it with its bill, it did not retreat at once, but gave battle with body erect, and tail firmly fixed, and tried to entangle the warden in its folds. While the serpent was thus striving to destroy, and the bird to preserve, the little Storks, the former fell pierced with many wounds, but not unrevenged ; for in the conflict

it so injured the bird with its poisonous fangs, that every feather fell off. When, therefore, the time for migration was come, and the other Storks had already flown away, these parents, with their children that had been rescued, remained, in order to give proof of their gratitude, till the plumage of their preserver was renewed, when they all departed together.

And so the Stork has been idealized, and been made to embody virtues which are found more scantily than could be wished amongst our own race; just as the Redbreast is said to have in pity strewn sheltering leaves over the bodies of the babes whom man's cruelty had murdered. From actual infirmity we love to flee in thought to ideal perfectness, and that with our own kind, as well as with the birds and beasts of fable. In our respectful or affectionate remembrance of the dead, we recall to mind not so much the character which actually did exist, as the perfected image of that which might have existed, had the failings and infirmities of human nature permitted; our thoughts delight to dwell rather upon the heavenly than the earthly vision of our departed friends; and as the artist, in his material representation of them, subdues all bodily faults and adds angelic wings, so our mental picture of the companions whom we have lost, obliterates each weakness, and enhances each moral beauty, till we can almost realize to our mind's eye the blessed and purified spirits whom we hope to meet in a happier existence, after we also shall have thrown off our heavy and cumbersome garment of clay. Now, let us put the fact in *this* way. The absent and the estranged are dead to us, either corporeally or spiritually. Can we not bring ourselves to regard them with an equal love, tenderness,

and forbearance, and even, if possible, through the same beautifying medium of retiring distance, in our mournful recollections, as we would friends departed, really denizens of another world?

The captive Stork does exhibit some traces of these engaging traits, but they are best seen where a pair is kept. Solitary individuals, though they do not seem to pine, still require a companion to draw out the full manifestation of their habits. My own pair, so long as I had the two, afforded much more interesting amusement than does the sole surviving bird; they were purchased in Great Yarmouth, of a person who several times a year makes trading trips to Holland, and were brought from Dort, not far from Rotterdam. It is quite a modern innovation that Storks are permitted to be sold, but now the young are regularly exposed for sale; they may be had in London at about 2*l.*, sometimes less, the pair. Soon after the purchase of mine, I started early one morning to bring them to their future home: they were placed in a large wicker cage on the top of a railway carriage, to the great astonishment of the porters, who wondered what new sort of poultry those long-legged creatures could be. I had inquired of the vendor if they were pinioned, who said that they were; and they were accordingly turned loose, on arriving at their journey's end, without further examination. But by "pinioning" I meant amputation of one or more joints of the wing; *he* understood the Dutch fashion of tying the wings together with twine at the upper arm, close to the back, nearly as we serve criminals before hanging them. This twine, being hidden by the feathers, was not perceived till the birds had grown considerably, when an unaccountable bleeding

from the wing of the male bird caused an examination and a relief of both sufferers. The string had quite eaten into the flesh, and made an ugly wound; after the removal of these shackles, and the dressing of the sore, the poor birds had to be pinioned in our once-for-all method, by amputation. I mention the case for the guidance of those who are likely to receive any large birds from the Continent. The pinioning with string, though it prevents flight, can still be made to allow a certain liberty of wing.

The female Stork, soon after being liberated from the basket, and turned out on our lawn, began dancing on one leg, holding the other in the air, and keeping up the step with the aid of her wings, as much as to say, "Here we are, settled at last!" Turkeys occasionally indulge in a similar hop-skip-and-jump, the same in kind though less elastic in degree. By-and-by she walked into the water, and took a bath, (she was very filthy from confinement in a close yard, and needed it much,) laying herself down at full length, as any lady might in her dressing-room. The male had too much dignity not to conceal his joy at this emancipation, though he evidently felt it. After the dip, they dried themselves in the sun, walking about with their wings open and outstretched, just as if a person were carrying a couple of parasols, one in each hand, if it were the fashion to wear two.

I can quite believe the stories about the jealous and careful affection of the male Stork towards his mate; for when we first visited them, before purchase, in their confined yard, in one corner of which they had a small straw-littered shed, the male tapped his wife two or three times gently on the head, and twitched her

feathers, as a child would pull his mother's gown, to lead her out of the way of us suspicious-looking strangers. These occasional touches and pokings which they give each other are, with them, a substitute for the voice, which is wanting. Mr. Swainson too hastily says, "There is (are?) no birds yet discovered which, even so far as they have been observed by man, are altogether silent;" but the Stork is utterly mute; it has no vocal utterance whatever; the nearest approach to it is a faint sigh if they are roughly treated. Their looks and gestures to each other are, in consequence, more than usually expressive. When they are close together, they make little communications by these crossings and touchings of the bill, which put one in mind of the antennal language of Bees. A clattering of the two mandibles of the bill is used as a more distant signal. The politeness of the husband to the wife, during their joint residence with us, was remarkable in many little things: their lodging at night was in a small house in our court-yard; when they came up at evening from their day's perambulation on the lawn and their fishing in the moat, the male, on their arriving at the gates of the court-yard, would step aside to let the lady enter first, with a perfect gentlemanly air of "After you, Madam," and would then follow her into their chamber, the door of which was immediately closed by the servant for the night. Similar attentions were paid on their exit of a morning for the day's ramble.

And so they went on happily together, following their natural instincts. In fishing, they did not stand still waiting for their prey to approach them, like the Heron, and some other waders, but proceeded along sounding the mud with their bill in search after eels,

and poking among the water-weeds to find their victims by feeling, exactly as we may suppose to be the case with Woodcocks, Snipes, and Curlews. A popular notion here is, that the legs of the Herons secrete an oil which is attractive to fish, and which tempts them to swim within reach of the bird's unerring bill; and it has been suggested, in consequence, that some preparation from the legs of Herons would be a capital thing to smear or mix with bait, and so make it irresistible to the fascinated Roach and Dace; but Storks have no such inviting medicament to aid them, and are obliged to trust entirely to their own exertions; fish, however, is but a small item of their diet. On inspecting the castings which they now and then throw up from their stomach, (and which *may* have contained among other indigestible matter, jewels and ginger-roots, as before related,) I have often observed the wing-cases of beetles. The grubs of these insects they eat greedily, and so must not only be serviceable to pasture lands, but in a country like Holland, where the very existence of the people depends on the dykes, which are themselves held together by the roots of grasses, which again are most liable to destruction by grubs, the Stork must be an incalculable benefactor. But even more: the Water Rat is extremely destructive to such banks, by burrowing through them—the beginnings of strife are like the letting in of waters—and also by eating both the tops and the roots of various plants that hold them together. But let a Water Rat only venture within reach of a Stork's bill, and he will soon find himself transferred to a small safe dungeon, whence there is no return. I have been told that some years back a tame Stork was kept at

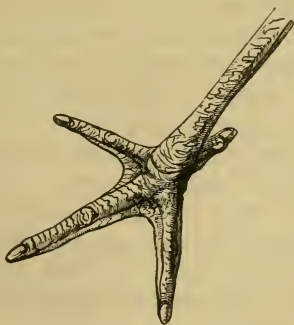
Guist in Norfolk, to whom mice were administered, by opening his bill, and placing them alive on the lower mandible, when they would run down the open throat before them, thinking it a most convenient retreat. The other day, I asked our rat-catcher to spare me a three-quarter grown animal that his dogs had just killed, as Mr. Stork had had no breakfast that morning. The man stared and complied, and opened his eyes still wider, when the beast which I tossed Stork-wards by the tail, was caught in the air, and soon seen travelling down the swelling gullet of the bird. As the performance gave so much satisfaction, we ventured to request in return that the destroyer of rats would now and then send Storkie a present of a bunch of game—of his “small deer.” Indeed, we have never had so few rats and mice on the premises as since a Stork has been kept there. This diet is most healthful for the bird, as the pellets of fur, &c., which it throws up cleanse the stomach. It must, however, be confessed that chickens and ducklings would soon share the same fate as rats and mice; and that, so long as they are under age, he must be kept out of their way, or they out of his, if the consumption of poultry in our establishment is not to go on at quite an extravagant rate. It may be supposed that, on the Continent, the free use of his wings, and the power to search after less valuable prey, causes him to refrain from similar depredations amongst the young broods there; otherwise he would be a much less welcome guest at the farm-houses where he is now so hospitably received. But Temminck, in his “Manuel,” p. 561, includes in the “nourriture” of the Stork, young Ducks and Partridges: what the Dutch game preservers think of this, he does not state. We have

verified the old remark, that, though the Stork will eat frogs at such a rate as to be held by them in fearful contrast to good King Log, he will not swallow a single toad, even when pressed by a sharp appetite. Frogs do no great harm, that we should wish them to be so eaten up; and the real services which the Stork does perform are a sufficient reason for the almost superstitious consideration with which he is regarded. It is a pity the feeling does not extend to England: the Germans care nothing for Redbreasts, and so, in revenge, the English show no forbearance to Storks. After a few days' hard weather, my birds, tired of parading the snow-covered ground, though they were sufficiently supplied with food, ventured down to the brook which separates my glebe from the neighbouring property, to amuse themselves by fishing for something and paddling in the running water. This habit of resort had been observed; and a loose fellow shot at them, and was stopped in the act of making off with the male bird, which he had wounded. His excuse was that "he took them for Hansers;"* the hypocritical vagabond! He had handled a gun too often on the sly, for us to believe a syllable of that. But a humble apology, prompted by fear, was made; and as the bird promised to recover, and indeed did recover from his wound, the matter dropped, with a caution for the future. But the hen, who was apparently uninjured, received some stray shot, and afterwards pined away, and died. The survivor stood mourning over

* Hanser is a local and also an old name for the Heron. The proverb, "He does not know a Hawk from a Handsaw," is nonsense, till we correct the reading by substituting Hanser or Heron; *i. e.*, "He does not know the Falcon from his quarry, the pursuer from the pursued;"—the height of folly in feudal and real sporting times.

the body of his mate, till we carried it away as a present to a neighbouring bird-stuffer; and he still continues with us in a state of widowhood, as he is unable to make a journey to his native home and find a new wife for himself.

Storks in captivity do not show any restlessness at their usual times of migration; but after that period, it is advisable to house them at night, and in bad weather: in midwinter they had better not be in the open air more than the three or four finest hours of the day. They get so used to this sort of shelter, that they *will* have it when the regular time comes. No dissipated lodger, locked out for exceeding all respectable hours of return, knocks to be let in with more determination, than does my poor shivering Stork insist on being admitted on a winter's afternoon. If he happen to be on the island, and the gate on the bridge is closed, he will



Foot of White Stork—one fourth natural size.

take to the water, though it is much beyond his depth, and swim across most determinedly. In this he is

assisted by the partial web which connects his broad flat toes. The resemblance of the claws to the nails of the human hand has long been noticed, but, I believe, not before specially figured as now. As far as we can judge of the expression of the bird's sentiments, it appears, when once made captive, to lose the desire of journeying into other climes, and to attach itself for good to the residence of its owner. I almost believe that it might be trusted, after a time, with the free use of unpinioned wings, were not the precautionary mutilation necessary, in this country, to save it from destruction by wanton, or malicious, or dishonest gunners. I now resign the hope of myself founding a colony of Storks hereabouts, but am informed that Lord Wodehouse has lately settled a pair in his grounds at Kimberley, and perhaps his lordship's protection may be more efficient than that of a mere humble country clergyman has proved to them.

Storks are capricious in the selection of their local haunts. "The Stork does not visit the Peninsula of the Crimea; on the contrary, the small Crane, called the Numidian Virgin, is very frequent, and constructs its nest in open plains, chiefly in the vicinity of salt-lakes. The young birds are brought to market by the Tartars in great numbers, and are speedily tamed, insomuch that they afterwards breed even in farm-yards."* England, for some unexplained reason, never has been a great resort of the White Stork, although it is found at much greater distances from its German head summer quarters.

From M. Sundevall's good and original account of the

* Pallas's Travels in the Southern Provinces of Russia, vol. ii. p. 460.

birds of Calcutta *, we learn that "The Stork is one of the birds which occurs both in Sweden and Bengal; it is probably found in the latter country only at the season when it is wanting in the former. In the tree-covered vicinity of Calcutta I only saw one, but some miles further north they occur in flocks on the plains: about sixty were counted in one of these flocks. This was a very unusual sight for a European, for the Storks with us live, or at least fly, solitary; yet in Sweden they assemble in flocks at certain places of meeting, in order to migrate. There has been from time immemorial one of these meeting-places for Storks on certain hills near my native place, Hogestad in Southern Scania. These hills lie between Hogestad and Baldringe, on a dry heath, surrounded on two sides by marshes and peat-bogs, about one thousand paces from an open oak-wood, where Storks have always built in numbers. After the Storks in autumn have collected around in parties for some weeks, without keeping near the nests, or roosting in them at night, one may see them some day in the middle of September coming from all quarters to the hills in question. The number gradually increases, so that many times more Storks than breed in the district are soon assembled. They are supposed to come hither from a considerable part of Scania, perhaps from all the colonies which are sent out at intervals from the oak-wood above mentioned. Two days thus elapse, during which the birds which have arrived chiefly remain quiet, each by itself, without seeking food, which, however, is to be found abundantly in the marsh close by; but the following morning they

* Annals of Natural History, vol. xix. p. 60.

have all disappeared, and no Stork is seen afterwards in the district, until they, after half a year's interval, return more gradually to their homes from their distant wanderings. The natives say that they hold a council before they set out from the country. Many such meeting-places for Storks are found in Scania, near the woods which they inhabit. In the wood just mentioned they build close to each other in the oak-trees, and agree well together; but in other places they usually will not allow another bird in their vicinity without violent battle arising when they come near each other's nests.

“The Storks which I saw in Bengal had the beak and legs red as with us; but it occurred to me that the black between the beak and the eye in the males was somewhat broader.”

Storks were of old believed, on their retirement from Europe, to lie torpid at the bottom of ponds, with their long bill not tucked under the wing, but inserted in a ludicrous and hardly describable position. Even now their visits and departures are matters of great interest, at which no one can wonder who has seen these wide-winged birds and their brood wheeling around a German farm-house. It is quite like the bidding farewell to, or the welcoming of old friends.

In autumn. alas! the Storks are gone; no more to be seen standing about, or flapping to and fro, or sailing round about. Yesterday they were here; now they have departed without notice; and we must prepare for long bitter nights, and days of sad privation, with scanty firing, and but poor food. We hard-working Bauer folk must eat our black rye-bread, munch our sauerkraut, and sup our watery soup, with hardly a sight of

the morsel of unsalted Rindfleisch that has been boiled in it. As to a savoury Gebraten, Calf's flesh, or Swine's flesh, such as the English traveller calls for, that is quite out of *our* way. Even the Ofen which warms the house does not cheer the eyesight; for, you know, a German's household fire is rather to be found in his pipe than on his hearth. So we shall be dull and miserable (except at a chance time in the Bierbrauerei) so long as the Storks are away from Deutschland.

But in spring!—News! Good news in the village! This morning are the Storks returned! Even in the darkness of night they found the way to their old home. See them walking before the house, taking a survey, and looking kindly to know that we are well, before they sail off to forage for awhile in the marshes. One is on the house-top, glad that the winter has not blown away all the sticks from her old nest on the cart-wheel. Now, we poor bodies may rejoice for awhile, and eat our sorry fare in cheerfulness. Winter is gone, and the Storks are come! The children may now gather flowers, and play in the woods. We shall hear the Gross Herzog's military band play under the lime trees; and perhaps, if we have a few kreuzers to spare, we may drink the summer cup with a bunch of sweet herbs in it; better that than our ordinary water and vinegar. Ja wohl! The Cuckoo will sing; the cherries will ripen;—only think of the Kirschwasser to be made, and then the harvest and the vintage will follow, all while the blessed Storks are with us!

CHAPTER IX.

THE EMEU.

Pets for princes.—Orthography of the name.—Confounded with the Cassowary.—Game laws in Australia.—Anticipated extinction of the Emeu.—Operating causes.—Self-denial of the aborigines.—Duty of the present Australians to preserve the Emeu.—Ease with which it may be stalked.—Proposed Emeu parks.—Little hope for future Emeus.—The refuge of domestication.—Dinornithes, or Wonder Birds.—Their discovery and history.—Adaptation of the various species to their locality in New Zealand.—Their great variety.—Their recent existence.—How congregated in New Zealand.—Professor Owen's conjecture.—Any hope that they still survive?—A few glimpses of evidence.—The latest news.—Habits and propagation of the Emeu.—The Emeus at Knowsley.—Follow the seasons of the *southern* hemisphere.—Injudicious proceedings.—Their diet.—Peculiarities of their plumage.

THERE are pet birds suited for all classes and ranks of mankind; there are Larks, Linnets, Canaries, and Finches for the humble artisan, as well as for his superiors; there are Hawks and Falcons for sportsmen; Jackdaws, Magpies, and Ravens for ostlers and stable-keepers; Parrots and their kind for indoor invalids; Swans and Peacocks for the gentry; Ducks and Geese for the fen-folks; the Stork for the Dutch, the Robin for the English peasant; and, since the Ostrich refuses to breed in captivity, the Emeu is the bird for Peers and for Princes.

It will hardly be supposed that the Emeu is made to appear in this volume from any hope of its possible profitability in a domestic state. But we may urge, in the words of Eleazer Albin, that " 'T is certain brute animals were placed amongst us for nobler ends than just to kill and eat; and to a mind athirst for know-

ledge, as all unprejudiced are, an acquaintance with the actions, views, and designs of these creatures, must be a higher gratification than ever they can yield in the field or the dining-room." The English reader will not be amazed, like an Australian native, that other besides marketable animals should ever receive a glance of attention from civilized men. "Our tawny friend Daraga," says Mr. G. Bennet*, "was puzzled to form a conjecture why, with such abundance of cattle, sheep, &c., we wanted *Mallangongs*, or Duck-billed Water-moles!" I have not introduced the Emeu as an aviary bird from any experience of keeping it on my own grounds. I doubt whether I *dare* keep a pair, had such ever been bestowed upon me. The sight of such a couple of rare poultry chasing each other round the boundaries of our lawn might cause the neighbours to ask how long it would be before the Commission of Lunacy was issued. But, in spite of this difficulty, a few particulars that have been collected, and others that have been kindly communicated, induce me to devote a few pages to this noble creature.

The name of the bird is spelt in two ways: by Bennet and by the first Australian discoverers, *Emeu*; by Mitchell, Swainson, Sturt, and others, *Emu*. We prefer retaining the elder mode. To English readers the point seems of no importance, and would really be of none, except as fixing in written language the original Indian pronunciation; whether the syllables are to be sounded as *E-me-u* according to the first, or *E-moo* as the latest orthography would lead us to conclude. But Emeu is not the native name of the *Dromaius*

* Trans. Zool. Soc., London, vol. i. p. 245.

Novæ Hollandiæ; it was first applied to the Horned Cassowary, as may be seen in Albin*, who gives a very good figure: "Two of these birds," he says, "were to be seen (1738) at the *George Tavern* at *Charing Cross*, to which place I went to draw them. Their food was bread, flesh, fruit, &c., which they swallow very greedily, having no tongue. They were brought by a Dutch ship from Pallampank in East India." The Australian bird was at first supposed to be the same as the Indian Cassowary, and hence arose a temporary confusion of terms. Thus, Sir Thomas Browne, writing to his son Edward in 1680, says, "wee heare of two oestriges w^{ch} are brought from Tangier. I sawe one in the latter end of King James his dayes, at Greenwich, when I was a schoolboy. King Charles the first had a *cassaware*, or *emeu*, whose fine green channelled egge I haue, and you haue seen it. I doubt these will not bee showne at Bartholomew fayre, where every one may see them for his money." Dampier was unacquainted with the Australian Emeu. Writing in 1688, he states, "New Holland is a very large tract of land. It is not yet determined whether it is an island or a main continent. . . . Here are a few small land birds, *but none bigger than a blackbird*, and but few sea-fowls."†

The Emeu is especially interesting in these days, from the rapidly impending destruction which threatens it from the hands of European settlers. The Aborigines would gladly preserve it, but the Englishman steps in, and persists in exterminating the race. Even among the savage natives in the interior of Australia, where, if anywhere, we should expect to find an unlimited licence

* Vol. ii. p. 56.

† Account of the Philippines.

to kill and eat the first wild creature that came to hand, restrictive game laws are in force; and Captain Sturt tells us that they are universally the same all over the known parts of New South Wales. The old men, he says, have alone the privilege of eating the Emeu, and so submissive are the young men to this regulation, that if, from absolute hunger, or under other pressing circumstances, one of them breaks through it, either during a hunting excursion, or whilst absent from his tribe, he returns under a feeling of conscious guilt, and by his manner betrays it, sitting apart from the men, and confessing his misdemeanor to the chief at the first interrogation, upon which he is obliged to undergo a slight punishment. This evidently is a law of policy and necessity, for if the Emeus were allowed to be indiscriminately slaughtered, they would soon become extinct. Civilized nations, thinks Captain Sturt, may learn a wholesome lesson even from savages, as in this instance of their forbearance. For somewhat similar reasons, perhaps, married people alone are there permitted to eat Ducks.

Now Sir Thomas Mitchell predicts the extinction of the Aborigines of Australia themselves, in consequence of the slaughtering of the Kangaroos, on which they so much depend; and the destinies of these animals and of the Emeu seem to be bound up together. "The Kangaroo," he says, "disappears from the cattle runs, and is also killed by stockmen merely for the sake of the skin; but no mercy is shown to the natives who may help themselves to a bullock or a sheep. Such a state of things must infallibly lead to the extirpation of the aboriginal natives, as in Van Diemen's Land, unless

timely measures are taken for their civilization and protection. I have heard some affecting allusions made by natives to the white men's killing the Kangaroo. At present, almost every stockman has several Kangaroo Dogs; and it would be only an act of justice towards the Aborigines to prohibit white men from killing these creatures, which are as essential to the natives as cattle to the Europeans."

But if the Kangaroo is fast vanishing, the Emeu is doomed indeed. The same authority, writing in 1838, informs us, "Of the Kangaroo and Emeu it may be observed, that any noise may be made in hunting the latter without inconvenience, but that the less made in chasing the Kangaroo the better. The Emeu is disposed to halt and look, being, according to the natives, quite deaf; the eye is proportionally keen; and thus they frequent the open plains, being there most secure from whoever may invade the solitude of the desert. The Kangaroo, on the contrary, bounds onward while any noise continues; whereas, if pursued silently, he is likely to halt and look behind, and thus lose distance. Dogs learn sooner to take Kangaroos than Emeus, although young Dogs get sadly torn in conflicts with the former. But it is one thing for a swift Dog to overtake an Emeu, and another thing to kill, or even seize it. Our Dogs were only now learning to seize Emeus, although they had chased and overtaken many. To attempt to seize them by the side or leg is dangerous, as an Emeu could break a horse's leg with a kick; *but if they seize them by the neck, as good Dogs learn to do, the bird is immediately overthrown, and easily killed.* The flesh resembles a beef-steak, and has a very agree-

able flavour, being far preferable to that of the Kangaroo.* So that not only is there facility of capture to allure the passing sportsman, but also daintiness of flesh to tempt the hungry traveller.

It is usual with Englishmen to spare the hen Pheasants in their own preserves; but a similar forbearance can hardly be expected to be exercised by famishing explorers of the wilderness towards those female Emeus that fall in their way. The same Sir T. Mitchell relates exultingly, "This day we had even better fortune than yesterday in our field sports, for, besides three Kangaroos, we also killed two Emeus, one being a female, and then esteemed a great prize; for I had discovered that the eggs found in the ovarium of the Emeu were a great luxury in the Bush, affording us a light and palatable breakfast for several days."† This is certainly one way to check the increase of population in any race—to hunt up the females for the sake of their unborn young; and Sir Thomas shows the natives by his example how well he appreciates *their* self-denial during a season of short commons. It cannot, we think, be wondered at if the natives occasionally proceed ahead of a party of mischievous intruding "White-fellows," and drive off both those birds and the Kangaroos from their expected track of female Emeu stalking. *They* do not indiscriminately indulge in the flesh of so valuable a part of *their* live-stock; and the same traveller had previously witnessed an instance of their abstinence: "On my return to the camp, I found the dogs had killed an Emeu. It is singular that none of the natives would eat of this bird: the reasons they gave were that they

* Eastern Australia, vol. i. p. 292.

† Idem, vol. ii. p. 168.

were young men, and that none but older men who had "gins" (wives) were allowed to eat it, adding that it would make young men all over boils, or eruptions. This rule of abstinence was also rigidly observed by our interpreter, Piper.* The untaught natives showed that they had a little self-control, and gave a practical rebuke to the reckless wastefulness of the Englishmen.

And thus the gentleness of the Emeu's disposition, the ease with which they are approached and destroyed by man, and run down by dogs, together with their incapability of flight, must insure their speedy and complete extermination, notwithstanding their present (I ought perhaps to write *late*) numbers, in surprisingly few years, unless measures are taken by somebody somewhere to propagate the species in captivity. And where so fit a place to execute the task as Australia itself? Australians in future ages will regret to find themselves in possession of the preserved remains only of a gigantic bird, which their ancestors might have retained as an existing race; and they ought not, like improvident children, to expect us, their parents, to exercise for them a foresight in matters which are of most interest to themselves, and most in their own power to husband wisely. It will be curious if Australia has to send off to England for a fresh stock of living Emeus; but such a case is far from an impossibility. Their diminution is going on with fearful ease and rapidity; if the object were to exterminate them utterly, it could not proceeding to its completion better than it is. Australian *discoverers* have not seemed to anticipate such a consequence. But just let us listen to the facts they

* Eastern Australia, vol. ii. p. 29.

tell us: "An Emeu came very near our tents; and by carrying a bush *à la* '*Birnam*,' we got several shots, without, however, having the good luck to hit." ("Small thanks to the shooters," may the Emeus mutter.) "It was obvious, on various occasions, that the first appearance of such large quadrupeds as bullocks and horses did not scare the Emeu or Kangaroo; but that, on the contrary, when they would have run at the first appearance of their enemy, man, when advancing singly, they would allow him to approach mounted, and even to dismount, fire from behind a horse, and load again, without attempting to run off."—"Emeus were very numerous on the open downs, and their curiosity brought them to stare at our horses, apparently unconscious of the presence of the biped on their backs, whom both birds and beasts seem instinctively to avoid. In one flock I counted twenty-nine Emeus, and so near did these birds come to us on that occasion, that, having no rifle with me, I was tempted to discharge even my pistol at one, although without effect." Small thanks again to Sir Thomas Mitchell! but a few skilful Highland Deer-stalkers would bring home a very different bag of Emeus. Dr. Leichhardt's book contains numerous instances of the little difficulty there is in securing them; and when it is remembered that every water-course discovered by these pioneers of colonization will soon be occupied; that a grand object of enterprise at this date is to penetrate through Australia in all directions; and that the continent, wherever habitable, must become veined, although not overspread, with a European and game-pursuing population, it is not premature to commence a lament over the departing coursers of the wilderness, and think how sad will be

the dirge over the last of the Emeus. However, before so deplorable a consummation does actually take place, we ardently hope that some Australian aristocrat will arise—no matter whether from the proceeds of the Burra Burra copper-mines, or from the Murrumbidgee golden fleeces, if the fortune be but honestly come by—who will imitate the magnificent deer-parks of the great Scotch proprietors, and by appropriating a few thousand acres of desert as Emeu grounds for his own private shooting, and by appointing two or three “Black-fellow” families to reside therein and act as keepers, will succeed in preserving live specimens of both the man and the bird, for the study of future Ethnologists and Ornithologists.

But the fate of both can hardly be averted. Emeus and native Australians will have to give way to white men. “It was really an animating scene,” writes the Bishop of Adelaide, Oct. 1849, “to see so large an assemblage of the upper classes gathered together, to witness the laying of the first stone of a new school room, *on a spot where, twelve years ago, Kangaroos fed undisturbed.*” We wish we could also record the inclosure of the South Australian Zoological Gardens as well as the building of school-rooms and chapels; but that will perhaps follow soon, and Old England will then be happy to supply them with spare specimens of New Holland rarities.

The case, which is a general one, and not limited to this solitary species, is really worth serious consideration. We cannot re-create any animal or plant that we may have at last, however thoughtlessly and without malice prepense, pushed out of the list of living organisms; and at no period of the world’s history has the

invasion and occupancy of solitary wilds been going on with such rapid progression as at the present moment, and that with every prospect of an accelerated, instead of a retarded, rate of advancement. It is not with gigantic and valuable birds only that the exterminating process is carried on by the first marauders into an unoccupied country; plants also, that are in great demand, are threatened with the same fate. "Dr. Weddell entirely confirms the statement that there is so little proportion between the consumption and the supply of the Peruvian barks, that the most valuable sorts are threatened with rapid destruction. Nor does there appear to be any probability that this calamity, for such it must surely be considered, can be arrested, unless the best species are introduced into European colonies suited to their cultivation. This is fortunately not unlikely to be accomplished, for the finest of all, the *Calisaya*, has been raised in England from seed communicated by Dr. Weddell through his friend Mr. Pentland; and there is reason to believe that these gentlemen have also placed seeds in the hands of the East India Company, in many parts of whose vast territories the plant is certain to find a suitable soil and climate."* So that even plants may find a refuge in domestication, as well as birds and beasts, that will submit to such protection.

Some naturalists may think that these dismal prophecies respecting the poor Emeu, and other things, are a little too Cassandra-like; but, since

"old Experience doth attain
To something like prophetic strain,"

* Gardener's Chronicle, Jan. 6, 1850.

we may safely divine the sad fate that impends over the bird a century or two hence at furthest, unless the refuge of domesticity be offered and accepted, from the past history of the Dinornithes, or Wonder-birds of New Zealand—creatures whose existence has been so marvellously interpreted and proved by the skill of Professor Owen. A brief sketch of their history, compressed from the Transactions of the Zoological Society for 1849, will be an appropriate episode in what we have to say about the Emeu.

The first discovery of this numerous family of colossal wingless birds arose from the finding of a fragment of a bone, which the Professor, for elaborate reasons, pronounced to have belonged to a large Struthious bird, "heavier and more sluggish than the Ostrich." Three years afterwards, a large collection of these bones was received, that had been found by the Rev. W. Williams and other Church of England Missionaries. From the various size of these, they believed that the bird to which they once belonged was many years in attaining its full growth; and from their place of deposit and condition, that the bird was in existence in New Zealand at no very distant time. The latter conjecture proves even more correct than was anticipated; the former difficulty Professor Owen has explained, by proving that the various relics belong to numerous species, ranging from four to ten or twelve feet in height. All the large existing Struthious birds derive their subsistence from the vegetable kingdom. The predominance of plants of the Fern tribe, and the nutritious qualities of the roots of the species most common in New Zealand, are the characteristics of its present, and appear to have been of its former Flora.

Some at least of the characters of the skeleton of the *Dinornis* may have related to root-eating habits. The unusual strength of the neck indicates the application of the beak to a more laborious task than the mere plucking of seeds, fruits, or herbage *. In the spinous processes of the vertebræ are indications of those forces by which the beak was associated with the feet in the labour of dislodging the farinaceous roots of the Ferns that grow in such abundance over the soil of New Zealand. The great strength of the leg had reference, especially in the less gigantic species, to something more than sustaining and transporting the superincumbent weight of the body; and this additional function is indicated, by the analogy both of the *Apteryx* and the *Rassorial* birds, to be the scratching up of the soil. Professor Owen therefore pictures to his mind's eye a living portrait of the long-lost *Dinornis*, and imagines the several species ranging as the lords of the soil of a fair island, in which the will of a bountiful Providence has offered a well-spread table to a race of animated beings peculiarly adapted to enjoy it. They were then the highest living forms upon that part of the earth. No terrestrial Mammal was there to contest the sovereignty with the feathered bipeds, before the arrival of Man.

The extent and variety of the wingless terrestrial birds in times anterior to Man's dominion over the earth, must have been enormous. We know that the *Struthionidæ* have suffered greater diminution within the

* The Bustard is an existing example of the same adaptation.—“Yesterday I had a cock Bustard sent mee from beyond Thetford. I never did see such a vast thick neck; the crop was pulled out, butt as a Turkey hath an odde large substance without, so had this within the inside of the skinne, and the strongest and largest neck bone of any bird in England.”—*Sir Thomas Browne to his son Edward.*

time of Man than any other class of birds, perhaps than any other in the whole animal kingdom. Both the Maori (New Zealand) tradition of the destruction of the "Moa" (or *Dinornis*) by their ancestors, and the history of the extirpation of the Dodo by the Dutch navigators in the isles of Maurice and Rodriguez, teach us the inevitable lot of bulky birds unable to fly or swim, when exposed, by the dispersion of the human race, to the attacks of Man. It is not improbable that the species of *Dinornis* were in existence when the Polynesian colony first set foot on the island; and if so, such bulky and probably stupid birds, at first without the instinct, and always without the adequate means, of escape and defence, would soon fall a prey to the progenitors of the present Maoris. In the absence of any other large wild animals, the whole art and practice of the chase must have been concentrated on these unhappy cursorial birds. The gigantic *Dinornis*, we may readily suppose, would be the first to be exterminated: the strength of its kick would less avail, than its great bulk would prejudice its safety, by making its concealment difficult: at all events, the most recent-looking bones are those of the smaller species. Many of these bones were subsequently found by the Rev. Mr. Taylor in little hillocks scattered over the valley of Whanganui; each heap was composed of the bones of several kinds of the Moa, as though their bodies had been eaten, and the bones of all thrown indiscriminately together. The closely-allied, but comparatively diminutive *Apteryx* still (?) survives by virtue of its nocturnal habits and subterranean hiding-places, but in fearfully diminished and rapidly diminishing numbers. When the source of animal food from terrestrial species was reduced by the

total extirpation of the genus *Dinornis* to this low point, then may have arisen those cannibal practices which, until lately, formed the opprobrium of a race of men otherwise to be admired in many respects.

And how came this vast assemblage of *Dinornithes* to be congregated in one limited group of islands, to be preyed upon by Man before Christianity could come to teach him to refrain from preying upon his fellow-men? Professor Owen replies by a bold, almost an audacious conjecture, which, however, will afford matter for thought to those who remember that *fossil footsteps* of similar birds have been found in North America, and who have considered the theory of subsidence set forth in Mr. Charles Darwin's important and lucid works.

"The extraordinary number of wingless birds, and the vast stature of some of the species peculiar to New Zealand, and which have finally become extinct in that small tract of dry land, suggest it to be the remnant of a large tract or continent, over which this singular *Struthious Fauna* formerly ranged. One might almost be disposed to regard New Zealand as one end of a mighty wave of the unstable and ever-shifting crust of the earth, of which the opposite end, after having been long submerged, has again risen with its accumulated deposits in North America, showing us in the Connecticut sandstones of the Permian period the foot-prints of the gigantic birds which trod its surface before it sank; and to surmise that the intermediate body of the land-wave, along which the *Dinornis* may have travelled to New Zealand, has progressively subsided, and now lies beneath the Pacific Ocean."

Alas for the Wonder-Birds! They are gone! Take them for all in all, we ne'er shall look upon their like

again. Certainly not look *upon* them : but may we ever possibly look *up to* them—behold them as we would the Trojan Horse, or the Duke's Statue on the gate at Constitution Hill? Is there a chance that we, like the Romans with Julius Cæsar “when he was grown so great,” may ever “peep about their huge legs” in wonderment at the living monster? Let us see what hope is to be entertained that the *Dinornis* will one day shelve the Hippopotamus at the Regent's Park.

The Professor, when delivering his first oracle in 1843 on the single piece of bone, was “willing to risk his reputation on the statement that there has existed, *if there does not now exist*, in New Zealand, a *Struthious* bird nearly, if not quite, equal in size to the Ostrich.”

Mr. Swainson, the eminent ornithologist, in a note accompanying some specimens of the bones, says, “They are from the north island I have no idea that this strange group of birds is any longer in existence, notwithstanding all the stories of the natives and others. *If any may be alive*, they will probably be found in the Middle Island, *which may be almost said to be uninhabited*, except on the coast.”

Our expectations rise; and in a letter from the Rev. Mr. Williams, dated 1842, we find this:—“Within the last few days I have obtained a piece of information worthy of notice. Happening to speak to an American about the bones, he told me that the bird is still in existence in the neighbourhood of Cloudy Bay, in Cook's Straits; he said that the natives there had mentioned to an Englishman of a whaling party, that there was a bird of extraordinary size to be seen only at night on the side of a hill near there; and that he, with the

native and a second Englishman, went to the spot; that after waiting some time, they saw the creature at some little distance, which they describe as being fourteen or sixteen feet high. One of the men proposed to go nearer and shoot, but his companion was so exceedingly terrified, or perhaps both of them, that they were satisfied with looking at him, when in a little time he took the alarm, and strode away up the side of the mountain. The incident might not have been worth mentioning, had it not been for the extraordinary agreement in point of size of the bird. There are the bones which will satisfy you that such a bird *has been*, and *there* is said to be the living bird, the supposed size of which, given by an independent witness, precisely agrees."

In 1843, Colonel Wakefield writes, "I received lately your (Mr. Gowen's) letter respecting the Moa, with Professor Owen's notice. . . . I have heard several stories of live Moas having been seen; one, that the enormous size (higher than our storied houses), frightened the person, an Englishman, who was going to shoot it; but I don't believe any one has seen a live one lately. I intend to make further inquiries amongst the old natives."

In 1844, Captain Sir Everard Home wrote, "I feel little doubt that the *Dinornis* exists in the Middle Island of New Zealand, which is very thinly inhabited and almost quite unknown; perhaps also in Stewart's Island, where it is said that the Cassowary (Moa?) is to be found."

The latest intelligence is to be found in a recent number of the "*Sydney Herald*," which observes, that if Mr. Taylor can be relied on, this bird may probably be still discovered alive as Europeans advance into the

southern island of New Zealand. In the second number of the "New Zealand Magazine," and in a paper by the Rev. R. Taylor, on the Geology of New Zealand, is the following statement:—"Mr. Meurant, employed by the government as native interpreter, stated to me that in the latter end of 1813 he saw the flesh of the Moa in Molyneux Harbour; since that period he has seen feathers of the same kind in the natives' hair. They were of a black or dark colour, with a purple edge, having quills like those of the Albatross in size, but much coarser. He saw a Moa bone which reached four inches above his hip from the ground, and as thick as his knee, with flesh and sinews upon it. The flesh looked like bull beef. The slaves, who were from the interior, said that it was still to be found inland. The natives told him that the one whose flesh he had seen was a dead one, which they had found accidentally; that they had often endeavoured to snare them, but without success. A man, named George Pauley, now living in Foveaux Straits, told him he had seen the Moa, which he described as being an immense monster, standing about twenty feet high. He saw it near a lake in the interior. It ran from him, and he also ran from it. He saw its foot-marks before he came to the river Tairi and the mountains. Thomas Chasseland, the man who interpreted for Meurah, was well acquainted with the Maori language. He also saw the flesh, and, at first, they thought it was human."*

Here is all the evidence of which we are at present cognizant; but is it not almost enough to start a party for New Zealand in the hope of trapping, toiling, or

* Quoted in the Gardener's Chronicle, Nov. 23, 1850.

pitfalling,—anything but shooting,—the biggest bird in the world, and bringing it alive to England, as the crown of the Knowsley and the Regent's Park menageries? As various countries have selected some animal for their emblem, the new settlement of Canterbury may perhaps choose to display the *Dinornis* on their national banner, in which case we may hope that they will also be able to imitate the example of the Bernese, in keeping at the gates of their city living specimens (when caught) of the creature which they have raised on their standard and their coinage to heraldic honours.

Observations on the habits and propagation of the Emeu in the menagerie of the London Zoological Society and at Knowsley, have been communicated by the Earl of Derby to Mr. J. E. Gray, and incorporated in the text of “the Knowsley Menagerie,” a work which, with the assistance of that gentleman, has been published by his lordship. From these observations it certainly does not appear that there is much difficulty attendant on the endeavour to breed these birds, provided at least that they can have a tolerable extent of range, for they are fond of exercise, and seem to possess a good deal of curiosity, which leads them to haunt very much the borders of their inclosure, especially if anything be going on which occasions people to be moving about near to, but beyond its boundaries. On such occasions they will often rush hastily up along the fence, with outspread wings, and an eagerness and vehemence of manner which may often (especially to persons of timid dispositions and unaccustomed to the bird) seem to threaten violent attack upon the observers; but it may really be believed that if not disturbed or teased, they are of a very harmless, quiet, and gentle character,

though certainly, if irritated, they have an efficient and powerful weapon of offence in their strong legs, which are the parts they chiefly avail themselves of in any combats they may be brought into. As to their continuance of propagation in this country, independent of importation, the point which *may* be all important in respect to their continued existence on the face of the earth, no reason appears why, after the first few generations, it should not continue, with proper care and attention to their habits. The reader may not be aware that, in this species, and probably in the whole tribe with some slight modifications in the different species, the business of incubation is performed entirely by the males; but it is not yet quite clear whether the Emeu is strictly monogamic, or whether, like some others of the family, he is polygamous naturally. The opinion Lord Derby is at this time most inclined to adopt is the former; at least, he is certain that they do better when disposed of in separate pairs, distinct and removed from others, than when kept in greater numbers together in one and the same inclosure.

Early this year (1850) a curious circumstance occurred with the Emeus at Knowsley, which, though not a matter of very great importance, may be of some interest to record, as giving us something more of insight into the habits of a bird with which we have only lately become tolerably acquainted. The pair began to lay just before the frosty weather in January, and as by the 19th of that month they had seven eggs, not having been stopped by the severity of the season, it was feared that the eggs might become injured, and inquiries were made if the old ones paid any attention to them, when it appeared that both sexes sat at night by the side of

the nest, but never on the eggs, and that this is the mode of proceeding till the male chooses to assume his office of nurse, after which the female pays no attention to them at all. We may wonder how they decide between themselves when this process of real incubation shall begin? Now, the remarkable fact of the Emeus going through the preliminaries of incubation at such a season, can only be accounted for by supposing that the periodicity of the bird's constitution is unchanged, though, by crossing the equator, they find a (to them) reversed occurrence of summer and winter. Lord Derby seems to concur in this view: he says, "Emeus are not the only birds whose times of breeding remain unchanged by their removal to this country. My black Swans breed as often in the winter as at other times. I have known them hatch their young on Christmas day, and rear them quite well, but I believe they breed twice a year at least in England."

A month subsequently the Emeus were still determined to persevere. "Feb. 12, 1850. My Emeus have now eleven eggs, but I cannot help fearing the effects of this horrid weather for them. It was very cold and rained last evening, with the wind at south-east, but at night the wind went down and shifted to westward or to south-west; but this morning the rain changed to a heavy fall of snow, and it has been bitterly cold, but the snow has now nearly if not quite vanished again, having no foundation to rest on." Such sloppy miserable weather must be more likely to extinguish the vitality of eggs than a down-right hard clear frost. When incubation was once commenced, the animal heat of so large a bird would drive off all ordinary damp and cold. These unseasonable proceedings (for England), and their obstinate

adherence to foreign fashions, call to mind Cowper's fable "Pairing Time Anticipated," in which,

"The birds, conceiving a design
To forestall sweet St. Valentine,"

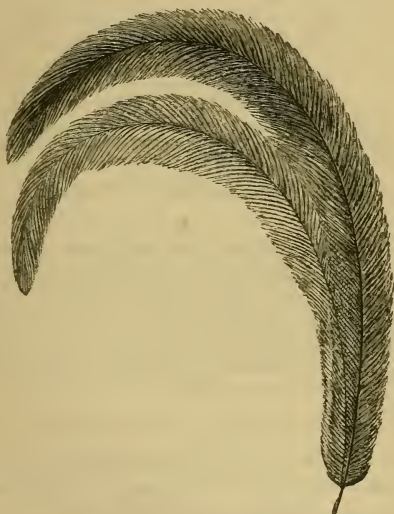
verified the proverb, "Marry in haste, and repent at leisure," the moral of the whole being,

"Choose not alone a proper mate,
But proper time to marry."

The diet of Emeus consists of grain and vegetables; cabbages and biscuits are much given to them, and it may be suggested that barley-bread, or the rye-bread which in some parts of Europe is the common food of man and beast, would be an inexpensive and convenient form in which to lay before them the farinaceous portion of their daily mess. A couple of Emeus would cost much about the same as a pair of small ponies to keep. The eggs are of a uniform dark bottle-green. The new-hatched young are elegantly striped with dark brown on a fawn-coloured ground, like guinea-chicks on a very large scale. A peculiarity in their plumage deserves pointing out. Mr. Yarrell, speaking of feathers, in an interesting paper in the first volume of the Transactions of the Zoological Society* says, "The accessory plume requires to be noticed. This is usually a small downy tuft, which not only assumes a very different character in the feathers of different species, but is even very dissimilar in the feathers of different parts of the body of the same bird. . . . The four species of *Struthious* birds afford remarkable instances of the variety that occurs in this accessory plume, even in subjects so

* Page 13.

closely allied. In the *Ostrich* the feathers have no accessory plume; in the *Rhea* there is a tuft of down; in the *Emeu* the accessory plume is augmented to the full size of the principal shaft and web, and the feather of this bird is constantly and correctly represented as having two plumes on one quill; in the *Cassowary*, besides the double shafts and webs from a single quill, as in the *Emeu*, there is still an accessory plume, thus forming three distinct parts."



Body feather of the Australian Emeu.



Egg of the Common Quail—natural size

CHAPTER X.

THE COMMON OR DACTYL-SOUNDING QUAIL.

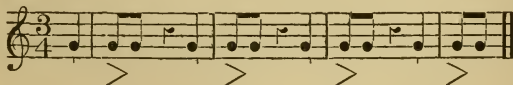
(*Coturnix dactylisonans*.—GOULD.)

Emblem of mediocrity.—Explanation of specific name.—Call note.—Their migrations.—Immense multitudes.—Their destruction.—Ancient history.—Identical with the Quail of Scripture.—Do not universally migrate.—Welcome feasts afforded by their flight.—Quails in captivity.—Their fate in an aviary.—Distinction between Quails and Partridges.—Unvarying plumage throughout the Old World.—Whether polygamous.—Careless of their young.—Their double moult.—Breeding in confinement.—Diet.—Subject to epilepsy.—Estimation as food.—Modes of cooking and of fattening.—Quail fights.—Distinction of sex.—Pick-werwick.—Quails in process of fattening.—Necessaries of life.

“BIRDS, faithfully imaging the relations of this life, offer to us, in the variety of their plumage, types of the distinctions which exist in the state in which Man finds himself placed. Many a one, puffed up with his wealth or his knowledge, resembles a Peacock, who, admiring his own splendour, seems himself to enjoy the magnificence which he displays; whilst the Quail, modestly clad, hiding itself from all eyes in its obscure retreat, is a representative of humble mediocrity, which strives

to reject and abjure all parade of luxury and empty splendour."*

The Quail is remarkable on many accounts, besides that of having suggested a pleasing emblem to the naturalist whom we have quoted for a motto. Its usual specific name (to begin with that), though not quite appropriate, is curious. The epithet "dactyl-sounding" is given to describe the call of the male bird, which consists of three notes repeated at short intervals in loud, clear, and bell-like tones. As it is our natural wish that these Essays should become popular, we shall, for that reason, be relieved from the charge of pedantry in stating that "dactyl" is a metrical foot originally used in Greek and Latin versification consisting of three syllables, one long and two short, denoted thus - $\cup \cup$ in the scanning of verses. The term is derived from the Greek word δάκτυλος, *dāctylūs* (itself a dactyl), meaning "finger," a member that has three joints, one longer and two shorter. The words *cūrriclě*, *gloōmilŷ*, *bōuntŷfŷl*, are English dactyls. But the Quail does *not* sing exactly in dactyls. The reader will perceive that in the instances we have given the accent is always on the first syllable; but the Quail's call marks the second as the strongest, and is easiest expressed by musical notation —



and so on, keeping always to the same note in the scale. It is generally, not always, preceded by two or three frog-like croaks, and the whole strain may be taken to

* Temminck, *Hist. des Pig. et Gall.*, tom. i. p. 2.

mean, "Mate! Mate! cōme hīthēr! cōme hīthēr!" This dactyl-phrase might easily be made the ground-work and leading idea of a new set of "Quail Waltzes," or "Valse des Cailles," containing less necessary discord and fewer *noises* than many modern compositions favour our ears with. We recommend to this class of composers the perusal of a really curious and clever book, "The Music of Nature," by Mr. Gardiner of Leicester, which will furnish them with many valuable hints. The dactyl-song is strictly a call note, which adds to its interest. We had kept Quails in our dining-room for several months without hearing it, because they lived in company; but, on parting a couple, and placing their cages in separate apartments, we were soon favoured with a specimen of their vocal accomplishments.

The wonderful migrations of the Quail will occur to every tyro. Their numbers are astounding. Millions must quit their native home, never to return. They are imported, for the table, by thousands into England alone, besides the bevvies that find their way hither *not* in cages, and at their own travelling charges. The numbers slaughtered at every halting-place during this passage all the way from Africa must be quite incalculable. The marvel is partly explained by Colonel Montagu*:—"Dr. Latham remarks that he has known two instances where twenty eggs have been found in the nest of a Quail. This prolificacy is the occasion of the immense flocks that are annually noticed on their passage, spring and autumn, in various parts of the south of Europe." In Great Britain their numbers are

* Dictionary, Rennie's Edition, p. 395.

comparatively few, but still are greater in many districts, Cambridgeshire for instance, than is commonly suspected. They are little noticed, by reason of their small size, their colour, which resembles loamy earth, the circumstance of their never perching, their trick of squatting when surprised, and, we suspect, their nocturnal habits when on the move. They really are not rare birds here, but we have no notion how they swarm at certain seasons on the Continent. "There is no part of Great Britain where we can go regularly out for a day's *Quail* shooting as in France (where these birds abound in the month of August), or the more southern parts up the Mediterranean, where they sometimes cover the country for miles. The Quails are so far plentiful on the left bank of the Tagus that many of the officers, indifferent shots, while in winter quarters at Vallada, thought nothing of going over, and returning to their dinner with ten or twelve couple, although with every disadvantage in point of guns and ammunition."* Another sportsman of some repute, Colonel Napier, tells us that "Malta is not a field where the sportsman has a very extensive range, either in the quality or quantity of his game, the Quail being the only bird coming, properly speaking, under that denomination, which is to be found in the island, and these only at certain periods—in the spring, on their passage from Africa across the Mediterranean, and on their return in autumn. They then make their appearance in great numbers, but dreadful is the slaughter which takes place in their serried ranks, as war is waged on them by every '*Smitch cacciadore*' who can muster anything

* Colonel Hawker's Instructions, p. 218.

in the shape of fire-arms, from a blunderbuss to a horse-pistol. Quail, at the above seasons, a few Rabbits, Blue Pigeons, Turtle-Doves, Blackbirds, and Beccaficos are almost the only living animals to be found here in a wild state."* The same thing takes place on the main land. "Like Malta, the country about Alexandria is, in the spring and autumn, visited by large quantities of Quail, in their periodical emigrations; and their appearance is always the signal for a greater variety of 'Cockney sportsmen' than were ever mustered at Blackheath or Epping. Mounted on donkeys, armed with all manner of projectiles, duly rigged out in sporting costumes—shooting-jackets and gaiters—every merchant's clerk here fancies himself a 'Cacciadore,' and proudly sallies forth on a Sunday morning to the plains of Ramlah, where numerous sanguinary deeds are committed, not only on the Quail tribe, but on every unoffending Lark, Houppou, or unfortunate Dove whom these ardent votaries of Nimrod can possibly get a pot-shot at; and towards evening, dozens of these gay foresters may be seen returning through the Damietta gates, and proudly displaying to the wondering Arabs whole strings of these noble trophies of the chase!"†

In reading these amusing accounts we can hardly avoid more serious thoughts that call to mind historic occurrences which took place ages ago. "At even ye shall eat flesh, and in the morning ye shall be filled with bread: and ye shall know that I am the Lord your God. And it came to pass, that at even the Quails came up, and covered the camp: and in the morning the dew lay round about the host. And when the dew

* Wild Sports in Europe, &c., vol. ii. p. 49.

† Idem, p. 348.

that lay was gone up, behold upon the face of the wilderness there lay a small round thing, as small as the hoar frost on the ground.”* The “small round thing” has of late had a very remarkable and unlooked-for illustration, for an account of which the reader is referred to the Gardener’s Chronicle of September 29, and to the Athenæum of October 6, 1849. As to the Quails, there have been various hypercritical cavils. Scott’s notes tell us that “there are different opinions concerning the meaning of the word translated *Quails*. Some imagine that they were a species of locusts; (others even fancy that they were *flying fish*!) but the language of Scripture uniformly leads us to consider them as wild fowl, of whatever species they might be.” But there seems no good reason to suspect any mis-translation in those passages of the Old Testament which relate to Quails: their great though partial abundance continues to this day. It was left for the sound knowledge of Colonel Sykes, who is quoted by Mr. Yarrell to set the matter at rest in a very few words. “There is another mode to connect the bird of Scripture with the *Coturnix dactylisonans*, and this is readily done by the simple fact of its being the only species of Quail that migrates in multitudes; indeed we have not any satisfactory account that any other species of *Quail* is migratory. Aristotle mentions the habit; and Pliny states they sometimes alight on vessels in the Mediterranean, and sink them!”† The joint weight of our own pair of Quails is seven and a half ounces. We will therefore propose the following sum to our arithmetical friends: given the number of

* Exodus xvi. 12, 13, 14.

† British Birds, vol. ii. p. 359.

tons burden of a trading vessel in Pliny's days, how many Quails would it take to load it to the sinking point?

Colonel Sykes proceeds to adduce modern naturalists and travellers as witnesses to the prodigious numbers of these birds that are captured, one hundred thousand being, on one occasion, taken in one day, and judiciously adds, "With these facts before us, considering the positive testimony of the Psalmist that the unexpected supply of food to the Israelites was a *bird*, and that *bird* agreeably to the Septuagint and Josephus a *Quail*, that only one species of Quail migrates in prodigious numbers, and that species the subject of the present notice, we are authorized to pronounce the *Coturnix dactylisonans* to be the identical species with which the Israelites were fed. We have here proof of the perpetuation of an instinct through 3300 years,—not pervading a whole species, but that part of a species existing within certain geographical limits; an instinct characterised by a peculiarity which modern observers have also noticed, of making their migratory flight by night: 'at even the Quails came up.' As might be expected, we see the most ancient of all historical works and natural history reflecting attesting lights on each other."

Here is a small fragment out of infinity brought before our view,—a minute portion from eternity,—a mere touch of Omnipotence! A thousand years are as one day;—the same now with us, as with the Israelites of yore;—and the same onwards, till any new order of nature shall be called forth by special intervention. "He rained flesh upon them as thick as dust: and feathered fowls like as the sand of the sea. He let it

fall among their tents: even round about their habitation. So they did eat, and were well filled; for he gave them their desire: they were not disappointed of their lust.”* But what is so extraordinary in the migrations of the Quail is, that *all* the birds do not migrate,—like Storks, and Cranes, and Swallows, and Cuckoos, and so on,—but in all the countries where they are found considerable numbers remain to be the parents of future swarms. Even in Great Britain some continue all the year round, without feeling the mysterious impulse to return southwards†. When they do stream forth to cover the land, it seems as if the lavish bounty of Providence chose at those periods to scatter, with open hand, an abundant supply of food throughout the expectant nations—a feast to the hungry. Who can tell how many shipwrecked mariners, escaped with their bare lives from the squalls of the Mediterranean,—how many famishing families, isolated in the Archi-

* Ps. lxxviii. 28-30.

† “We should be deceived in supposing that the emigrations of these birds are determined by the cooling of the atmosphere: these migrations, which are often performed by Partridges also, are determined by the locality and by the dearth of alimentary substances; for we know that even the Quail of Europe, that bird whose periodic change of place seems an indispensable need, is stationary in some countries of the globe, where it *never* migrates.”—Temminck, Hist. Nat. des Fig. et Gall., tom. iii. p. 463.

The following passage proves that they are sometimes settled in their localities in India:—“In a valley near Jangamar, there are astonishing numbers of Quails and Partridges, for the maintenance of which the Khan causes millet and other seeds to be sown, that they may have plenty of food; and a number of people are appointed to take care that no person may catch any of these birds, which are so tame, that they will flock around their keepers at a whistle, to receive food from their hands. There are also a great number of small huts built in different parts of the valley, for shelter to these birds, during the severity of winter, where they are regularly fed by the keepers.”—Marco Polo: Kerr’s Voyages.

pelago of the Levant, have, since the epoch of the Exodus, been saved by the sudden flight of birds wafted to their isle by some propitiously-shifting wind, and have felt with thankful hearts that He who feeds the Ravens has fed them! In the case of the Israelites we are referred to a miracle. Miracles we are told have ceased. But a miracle cannot, to the minds of common-sense people, be very clearly distinguished from the action of a particular Providence,—a series of ever-working miracles. That the superintendence of a particular Providence has not yet been withdrawn from us, working out good from evil, strength from weakness, those feel most assured whose frail bark has been driven through stormy waters, whether metaphorically, in the pelting, crushing, sometimes foundering, troubles of life, or literally, in the tempestuous seas, where there was little but the compass, and a firm trust and faith, to prevent all heart and courage from giving way. The flight of Quails, and like unlooked-for aids, have been the inspiring accompaniments on more than one Exodus from heartbreaking sorrow and oppression.

Quails in captivity are of far inferior interest to what they claim in a state of nature. A few solitary individuals are kept as cage birds, but more frequently on the Continent than here, for the sake of their song, or call. But they fail to excite much personal favour towards themselves. We have had them more than a twelve-month under our eye, without being able to call forth any signs of attachment to ourselves; they only become a little less wild, but will still either squat, or flutter, if suddenly intruded upon too closely. Few aviaries are, or ought to be without them, for the sake of their historical associations; but in those places they are more

subject to suffer from adverse accidents than if kept in a low cage. When disturbed, or impelled to migrate, as during their evening restlessness, they mount almost perpendicularly with a strong and sudden flight, and fall either stunned by a hard roof, or rebounding from an elastic one, often with severe injury. Thus Mr. Rayner complains, "My Quails fed and lived as the Pheasants did, but at night invariably took to flight in the aviary, and I suppose beating themselves against the wirework at the roof, fell eventually into a fountain of water which was in the centre of the aviary, and were drowned. I had several pair in succession, but this was the fate of all."

Most persons on seeing our own caged Quails for the first time, suppose them to be not adult birds, but the growing young of Partridges or some other game bird which they are less accustomed to behold: and Buffon tells us that Theophrastus found so great a resemblance between the Partridge and the Quail that he gave to the latter the name of *dwarf Partridge*. "But," says Temminck, "as the species of these two genera seem to have considerable analogy, both in their carriage, and in the form of their bill and feet, and as this appearance of generic identity, if judged of at the first glance, is of a nature to mislead and embarrass the classifier as to the place which he ought to assign to those species, I will point out preliminarily the surest mode of distinguishing a Quail from a Partridge. This marked character is taken from the form of the wings. All the birds which compose the genus Partridge have the three outer quill feathers the shortest, regularly slanting one beyond the other, the fourth and fifth being the longest; whilst in all the species which compose the genus Quail,

Coturnix, the first species is that wherein the outer quill feather is the longest. I have found this character invariable in all the species; always coinciding with other differences less easy to seize: in short, in connection with the manner of life and the habits of the different species of these two genera.”*

Temminck, as is usual with him when he reasons from his own observations and does not adopt the notions suggested to him by others, makes the identity of appearance of the common Quail throughout its wide range over Europe, Asia, and Africa, an argument for the permanency of the forms stamped upon organic beings at their first creation. “In Europe,” he says, “we have but one single species of Quail, which equally belongs to Africa and to Asia, two climates very different in temperature from the cold and temperate countries of Europe, but under whose influence the Quail has experienced no sort of alteration in the colours of its plumage—a fact which, supported by so many others of the same nature that are often mentioned in this work, is a new incontestible proof that the temperature of the atmosphere, and the combined influences of air and light, do not operate with so much efficacy upon the colours of the plumage of birds and of the fur of animals, as Buffon and many other naturalists pretend.”

Most books tell us that the Common Quail is polygamous, which may *perhaps* be correct. Temminck says, “Bechstein seems not to believe in the polygamy of this bird, but I believe that he is wrong.” We, however, vote on the side of Bechstein, having been quite

* See also Col. Sykes’s Paper on the Quails and Hemipodii of India in the Transactions of the Zoological Society of London.

unable to keep more than a pair associated together in the same cage: the supernumerary birds, whether cocks or hens, being soon worried to death by the others. When our hen Quail accidentally broke her thigh, we fancied that the male bird showed greater signs of attachment and interest while his companion lay disabled on the floor of the cage, than would have been exhibited by most polygamous birds, and these little marks of attention were continued till her recovery by the uniting of the fractured bone. It may be that the hens are jealous amongst themselves, and will not bear the presence of a rival. It is not every female that, like the Domestic Hen, or the Wives of the Sultan, will quietly allow their lord to bestow his attentions, with their cognizance, upon other favourites: though how it is managed at Constantinople we can hardly guess, unless the internal arrangements of the seraglio are upon a principle that has furnished a hint for the model prison at Pentonville. From what can be learned of the wild habits of the Quail, although he is at times so unreasonably troublesome to the hens, we should call him neither monogamic nor polygamic, but agamic, or not marrying at all, from the very short and slight attachment which subsists between the sexes. "The male," says Temminck, "abandons the female for ever, as soon as she begins to sit, taking no interest in the brood; we may, therefore, without injury to the young family, decoy and snare the males in the last days of July and the beginning of August: the same sport carried on with Partridges at the same time of year would destroy whole coveys." Here is a lesson for improvident, negligent, and spendthrift fathers of families: it matters not whether *they* be drawn for soldiers, transported,

or otherwise disposed of: what should be a loss to their wives and children, becomes, in truth, a real gain; whereas the kind and faithful Partridge fulfils his duty, and is respected accordingly. The little Quails take after their parents; as soon as they are strong enough, they separate with perfect indifference, and it is rare afterwards to find two together; they prefer to pursue each his or her solitary devices, till a spontaneous impulse collects them in bands immediately preparatory to their migratory movements. We have by observation verified Temminck's assertion that the Quail moults twice a year: the old ones moult in August, the time when many (for we have seen that some are permanent visitors) would proceed southwards; in the spring both young and old moult a second time, before the commencement of that flight which brings the great body into Europe. The only case of the common Quail breeding in confinement in England, that I have been able to ascertain, is given in the subjoined note*;

* In March, 1849, a pair of Quails which for two winters had been kept in the house in a cage, were placed by Lady Rowley in one of the compartments of a small mew on the lawn at Tendring Hall in Suffolk. The mew is bricked two feet from the ground, wired in front and at the sides, closed at the back, and partly covered overhead; several pairs of Doves were kept in the other divisions of the mew.

The weather was severe in the ensuing April, with sharp frosts during several nights. The Quails, however, did not appear to mind the cold; neither did they seem to care for the constant cooing of the Doves. In May the hen laid ten eggs, and hatched nine of them in June. Four of the young birds died during the first moulting; the remaining five lived through the winter of 1849-50. In the month of February the birds fought excessively, and one of them was so much injured that it died. The others were immediately separated in pairs; but all the young birds have since died, either from want of variety of food, or from some other cause unknown.

The old birds were fed on wheat, with a little hemp-seed, and their young ones with Partridge food, and a little chalk was occasion-

though, were more frequent success a point of any importance, I do not think it impossible to attain it, by allowing a pair of birds to have a large aviary to themselves, with a portion screened off so as to allow them to retire to complete seclusion, and provided with earth, turf, and growing corn, in imitation of their natural haunts. The male had better be removed as soon as the female is seen to be scratching out a nest*. The hen with her tiny brood would be exceedingly pretty and interesting objects could their wildness be conquered. Temminck states the time of incubation to be three weeks, and that the chicks run as soon as hatched.

Quails do not seem to care for green food, either in the shape of unripe seeds, buds, or leaves, like many other gallinaceous birds, but feed on ripe seeds, worms, and insects. They drink frequently, and do not shell their seeds like linnets and canaries, but swallow them whole like Poultry. Our birds always have two small turfs in their cage, one with the grass upwards, the other reversed: the first attracts but little of their attention, the latter is soon torn to pieces by their search after grubs and their endeavours to dust themselves in the mould. They are very apt to become epi-

ally given to them. They delighted to hide themselves under boughs which had been placed for them in the mew. They are fond of busking and rubbing their feathers in the sand, and seemed much to enjoy fresh turf when given to them in their habitation. The pair of old Quails were tolerably tame when first placed in the mew. The two young hens laid thirteen eggs this summer ('50), but did not sit.

* "The nest is made by the female, but, like the Partridges, the eggs are deposited almost on the bare ground; these also, unlike the uniform tint which we find prevailing in those of the true Partridges, are deeply blotched with oil-green, and, except in form, are somewhat similar to those of the Snipe."—Sir W. Jardine, *Game Birds*, p. 96.

leptic, and suffer severely from the disease for months, without being killed by it, as one would expect. It is painful to see them with their head distorted, twisting and pirouetting on one spot as the fit comes on. The symptoms are well known to the London poulterers; better, perhaps, than to their customers; for the liability of Quails to this disorder is stated by Pliny as one reason for abstaining from their flesh:—

“To Quails the seed of a poisonous plant (Hellebore) is the most grateful food: for which cause they are banished from our tables; they are also usually rejected with disgust on account of the epileptic fits which attack them alone amongst animals, except man.”*

These prejudices have long since passed away, and the birds, with all their infirmities, are in high request. It is a pity that the fashion does not in England extend to the legions of small birds, which make such incalculable havoc on our grain and in our gardens, destroying our roofs, blighting our fruit crops in the bud, and our esculent vegetables in the seed. The plague and nuisance of them would be called intolerable, if it were not inevitable. Let then some one set the example of clearing them away by the aid of side dishes and third courses. “Nothing is better,” says Col. Hawker, p. 432, “than a dish of small birds fried, and eaten with oil and lemon juice.”

M. Ude, in his elaborate and thoroughly professional work on Cookery, speaks, we think, more slightly of Quails than they deserve, if a judgment be pronounced on their intrinsic merits without any reference to their London price:—“Young Quails are called Cailleteaux,

* Lib. x. 33.

but, owing to their enormous price in England, they are very seldom, if ever, to be procured at the poulterer's. A dish of fillets of young Quails is never attempted; the expense would be extravagant, without any other merit. Quails in my opinion have no flavour, and from the circumstance of confinement and bad feeding are never very fat; it is only their rarity that makes them fashionable." Nevertheless, he gives half a dozen receipts for cooking them, a request to have any one of which executed would thunderstrike an old-fashioned English cook, and make her give warning the moment she had recovered from her amazement. We may guess how she would look on being summoned into the breakfast-room, and requested to listen attentively while her mistress ordered a dish of *Quails au Gratin*, and read to her the following easily understood directions for preparing it:—"Bone six quails, pick them nicely; take a little farce fine or quenelle, made in preference with the flesh of young rabbits; fill the bodies of the quails with the farce: then raise a kind of dome on a dish, and with a spoon make room for the birds: next make an opening in the middle; let it be either round or square, according to the shape of the dish. Put a sweet-meat pot within the opening; cover the birds with layers of bacon, and put the dish into the oven for about a quarter of an hour, or twenty minutes at most, till the birds are done. Drain the fat carefully, take out the pot; then take six slices of bread cut in the shape of cock's combs, which fry in the butter till they are of a light brown, and put them one by one between the birds. Serve a ragoût à la financière in the middle, and cover the birds and the gratin over with a good Espagnole, well reduced."

The reader, having taken breath, shall now be supplied with a less laborious mode of cooking them, for which we are indebted to a high authority in such matters, and which is simply to roast them with a thin piece of bacon tied over the breasts, the sauce the same as for a roast pigeon, and with the accompaniment of fried bread crumbs, as with a dish of Larks. The London Quails are usually fattened on hemp-seed; but rice, not too much boiled, is the best food for them, as it makes their flesh more delicate and less oily. The town-fed Quails are probably better for the table than those taken wild, except at certain seasons. Those we have eaten on the Continent soon after their migration have been decidedly dry. Such countless legions moving together must half-starve each other, but when dispersed amidst an abundance of any favourite food, they improve correspondingly in condition; witness Captain Mundy in his amusing Sketches in India:—"In the cool of the afternoon we strolled for an hour in the grain-fields, and shot several brace of Quails, which, at this season, are like little flying pats of butter! I have heard it averred that these delicate *bonnes-bouches* are sometimes so fat in the grain-season, that, when they are shot, they burst, from their own weight, as they fall on the parched ground."*

This excursion to the East brings us to the subject of Quail-fighting, in which we are likely to be perplexed by the circumstance that *three* species are made use of by the Orientals to engage in single combat, viz. our own common Quail; the *Caille fraise*, *Coturnix exaltatoria*, or *Hand-warming* Quail, of Temminck, a small

* Vol. i. p. 148.

species, the total length of which does not exceed four inches; and the *Hemipodius pugnax*, or Pugnacious Hemipod, or *Half-foot*, so called because, having no hind toe, the back half of the foot may be said to be wanting. The last seems to be the favourite gladiator, the females even engaging in the set-to; and the probability is that when Quail-fights* are mentioned, as in the following extract, the Hemipod is the bird to which the anecdote applies.

“On our return from the beast fight, a breakfast awaited us at the Royal Palace of Lucknow, and the white table-cloth being removed, Quails, trained for the purpose, were placed upon the green cloth, and fought most gamely, after the manner of the English cockpit. This is an amusement much in fashion among the natives of rank, and they bet large sums on their birds, as they lounge luxuriously round, smoking their houkahs.”†

For aviary purposes the hen of the common Quail is much more difficult to obtain in England than the cock. A simple rule for those who are not learned ornithologists is, that the hen has a *decidedly speckled* breast, and that if a bird when placed alone, especially in a darkened room, utters the cry which foreigners have aptly spelt pick-wérwick, pick-wérwick, instead of *Pick-erwick*, as given by English naturalists, it is a male.”

* In allusion to Quail-fighting, Shakspeare thus makes Antony acknowledge the ascendant fortunes of Cæsar :—

“The very dice obey him;
And, in our sports, my better cunning faints
Under his chance: if we draw lots, he speeds:
His cocks do win the battle still of mine,
When it is all to nought; and his quails ever
Beat mine, inhoop’d at odds.”

Antony and Cleopatra, Act II., Scene III.

† Mundy’s Sketches in India, vol. i. p. 39.

Mr. Yarrell, Col. Montague, and their plagiarists, have written *pickerwick*; thus throwing back the accent, and making a real dactyl of it, but losing all resemblance to the bird's cry, which pick-wérwick retains if accented in the same manner as the English words "precisely," "moreover," "morosely," and such like.

The price of Quails in London may be stated at about 5s. the couple; fewer than three couple can hardly be set upon a table, and these, when trussed for the spit, will perhaps altogether weigh 1 lb. At the end of the London season, the purveyors of dinner-parties would give anything for a new dish to stimulate the cloyed appetite and the jaded eye; we strongly recommend them to vary the entrées of Quails with various preparations of Sparrows, or any other of our winged nuisances, before the fruit season and the harvest comes on; they would answer the purpose just as well, and the innovation would be a real benefit to the country.

Quails for the table are kept crowded in small low cages. Mr. Baily, of Mount Street, Grosvenor Square, informs us—"The remarks which I made with regard to the influence of season in fattening the Ortolan, apply equally to the Quail, although belonging to a different genus. I have had very many thousands of them, wild, greedy birds. A timid bird, if looked at, will hide in a corner of its cage, and take no notice of food; not so the Quail: he eats readily the moment food is offered, and thrusts his head boldly between the bars, although strangers are looking on; yet I *never* saw two fight, [because they had not room to do so; it would have been different had three or four been placed by themselves in a cage inclosing sufficient space for tilting ground.] I have hundreds of times seen them scrambling over

each other to reach food, but I never saw so much as a peck or a blow given. They are very chilly in a cage, and are liable to blindness. [From this it has been supposed by some, that the French used purposely to put out the eyes of the hens before exporting them.] Their beaks sometimes grow till they become cross-bills, and their plumage becomes very dark. In France they are strict birds of passage; but in Cambridgeshire, in parts of Hampshire, and in Ireland, they remain all the year; there are many in Ireland. We formerly got all our Quails from France, but in that self-called free country they have recently passed game-laws, and among other most preposterous enactments they have forbidden the exportation of Quails; we therefore now get them from Sicily, Holland, and Belgium."

Never mind if we cease to get them at all; let us encourage native productions instead. If we must have such tit-bits, there are plenty of small deer in the shape of Larks, Wheat-ears, &c., on our downs; and even if all these should fail us utterly, let us be thankful to be able to fall back upon roast beef. An English lady, on her first visit to Italy, saw with some surprise a dish of very *very* little birds produced at a table d'hôte, and inquired what they were; "Madam," replied a hungry Frenchman, with truth, "*ces sont des illusions!*"



The Ortolan.

CHAPTER XI.

THE ORTOLAN.

The fattening of wild birds largely practised by the ancients.—Good old-fashioned fare.—Mock and true Ortolans.—Not native Britons.—Merits as cage birds.—Their song, plumage, and diet.—Variable states of fatness.—Effects of revolutions.—Beau Tibbs and his Ortolan.

THE Quail and the Ortolan are, in England, about the last remaining instances of a practice which has obtained to a much greater extent in other countries than it ever has in this, and which has been systematically pursued from a very remote antiquity. Wild birds have, from the earliest ages, been taken alive by various means, and fattened for the table,

according to an established regimen. The creatures subjected to this process form an entirely distinct class from those known as Game Birds, as well as from those that are reared in a domestic state for the sake of their flesh; so that the poulterer's list, in days of yore, was much more rich than it now is. It would comprise *three* different descriptions of birds; viz., those bred at home, or true poultry; those killed, in their season, in a condition fit for table,—and our ancestors were much more comprehensive in their tastes, in this respect, than we are, for even Bittern might be unmentignable, after a first trial, to palates polite;—and those taken wild, and subsequently fed up in captivity, or “fatted fowl.” There is little doubt that the fatted fowl mentioned at 1 Kings iv. 23, were of this last class, and not fat cocks and hens, as is usually supposed; for in the Septuagint, the words thus rendered in our version are, literally, “*birds*, select fatted ones from the select.” The repeated and appropriate allusions in the books of Psalms and Proverbs to the net of the fowler, and the escape of the bird from the snare, will occur to every reader.

Cato, about 200 years before Christ, gives directions* for the fattening of fresh-caught Wood-pigeons on roasted beans, bean-meal, &c. His treatise is sternly brief, or he doubtless would have told us how to bring other birds also into good order; but Varro and Columella, writing at the commencement of the Christian æra, much extend the list. Varro attaches great importance to the fattening (on account of the high price they fetched) of Thrushes, *Miliaria* (our Ortolans, as likely as not), Quails, Wood-pigeons, and Turtles. In like manner Teal, Pintail Ducks, Mallard, &c., were fat-

* Cap. xc.

tened, he tells us, in the “Nessotropheion,” or Duckery. Columella gives similar instructions in almost the same words, and mentions besides the *sylvestres gallinæ*, Wood-hens, called Rustics (*quæ rusticæ appellantur*): these, he says, will not breed in servitude, and therefore he gives no more directions about them, except that they be fed to repletion, in order to make them more fit (*aptiores*) for convivial banquets. What species of bird is meant by them I cannot even guess.

Ruffs and Reeves were, years ago, snared in large numbers on their strutting hillocks, during their season of pugnacity, by men who then fattened them on bread and milk, and made a trade of carrying them to great provincial feasts. But the practice is now obsolete; and, except Quails and Ortolans, “fatted fowl” are pretty nearly obliterated from our bills of fare. Cygnets, however, hopped in August and ponded till November, may be truly, though they are not popularly, referred to the same class.

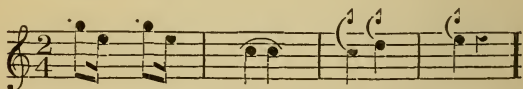
Fatted fowl belong so completely to good old times, that the few worthy old-fashioned folks whom one meets with now and then—ladies and gentlemen who contrive to abstain from the use of envelopes and railway carriages, so long as a sheet of *letter-paper* or a post-chaise is to be found in archæological warehouses,—they, to be consistent, ought never to be without a supply of these dainties for the third course of their dinners of state. And, at such tables, mediæval dishes would be sure to be assisted by *good* port and claret, of a respectable antiquity. The eater might safely confide in wine likely to cheer man’s heart, not upset his stomach. The revival of an entrée of Ruffs and Reeves, not such as are imported from Holland and to be had for ninepence a-piece in Hungerford Market

at the end of May, but birds traditionally caught with horse hair, and bread-and-milked for a fortnight, would be worthy of a true-hearted young England dinner-party. Ortolans are become cheap, and may soon be vulgar, unless M. Soyer can elevate them to their former station. Unfortunately, during the London season, they, the multitude of them, are out of season. But the papers record that at the dinner given by the Lord Mayor of York to Prince Albert and the assembled mayors of the kingdom, on November 1, 1850, one dish, to which Turtle, *Ortolans*, and other rich denizens of land and sea, had contributed, cost not less than 100*l*. Fashion may again make "the Hortulon" for autumnal feasts what it was when Albin, writing of it more than a hundred years ago, says, "These birds are accounted a great rarity in banquets, and bear a high price in *France* and other countries."

But it will be as well for cooks, who are ambitious of reproducing antique messes, to make sure that they have got the right species to work upon, and are not put off with Starlings, and other lean, mouse-flavoured birds, instead of the genuine morsel of fat. For Buffon has stated, surely in error, that "about the end of summer the *Wryneck* grows very fat, and is then excellent meat; so that in many countries it goes by the name of *Ortolan*." A mock Ortolan, we suppose; just as Theodore Hook called the Brill a Workhouse Turbot. The disarrangement of a few loose notes may cause sad confusion in cookery, as well as in Natural History.

The true bird is the *Emberiza chlorocephala*, or green-headed Bunting of Montague's "Ornithological Dictionary," and the *Emberiza hortulana*, or Ortolan, of Selby, Jenyns, and Gould. It has the palatine knob characteristic of the Buntings, and is but rarely found

wild in Great Britain. We may believe that all the individuals so taken at large have escaped from some cagefull of imported captives, and have managed to slip through the poulterer's fingers, just as he was about to prepare half-a-dozen of them for a nice little roast: and as we have kept a pair of these poor little creatures incaged for some months, not to eat them when a hungry fit came on, but to see how they would behave themselves, we will recommend any one in search of a harmless quiet pet, to look in at the London poulterers' shops, and rescue from butchery a pair or two of Ortolans. They have no stunning song, to convert them into parlour nuisances whenever a nervous friend drops in; all that we have heard from them is a low monotonous song, which may be thus expressed in musical notation:—



They are so little quarrelsome, that they may be admitted harmlessly into a general aviary, or even into a large cage occupied by a variety of small birds. Mine have lived in happy companionship with a pair of Siskins, birds much smaller and weaker than themselves, in quite a small space. Although their plumage is quietly russet-coloured, the light yellowish marks under the chin, and the dark brown patches on the back, give it some variety; and the brownish pink-tinted bill during their fat phase, and the naked yellow skin round the large, mild eye, quite save them from any cock-sparrow-like vulgarity of appearance. Sleek good nature is their principal characteristic; they look fat, and *are* fat. Their obesity of

body seems a necessary consequence of their equanimity of temper.

The Ortolan is as easy in its diet as in everything else; give it but enough canary-seed and fresh water, and it is content. It does not seem in the least to crave for groundsel, plantain-seed, fresh turfs, or any other cage indulgence. A secret, communicated by Lord Brougham to a West-End poulterer, is, that for a day or two before killing them, a few pieces of suet may be advantageously administered. This is much the same thing as Mr. Huxtable's pig-secret. When canary-seed is not at hand, other grain will suffice. "These birds, taken in great numbers in nets with decoy-birds, and fattened for the table, are," Booth's *Analytical Dictionary* tells us, "fed up with *oats and millet-seed* till they become lumps of fat three ounces in weight, some of which are potted or otherwise preserved, and so exported to foreign countries."

For a few commercial particulars respecting Ortolans I have to thank Mr. Baily, the respectable and well-known poulterer of Mount Street, Grosvenor Square. "I was the first importer," he writes, "of Ortolans into this country, as a matter of trade; some years since I used to get them one or two at a time, and then sold them easily at a guinea each." This price is almost classical; for in Goldsmith's *Essay* on "The Frailty of Man," in describing Mr. Th. Cibber, he says, "He would eat an Ortolan, though he begged the guinea that bought it;" and again, "As he grew old, he did not grow better, but loved Ortolans and green peas, as before." Mr. Baily continues, "We now have them by hundreds, and fat them for the table. They are Buntings, breaking their seed against a small projection from the roof of the mouth. They are cheerful, greedy,

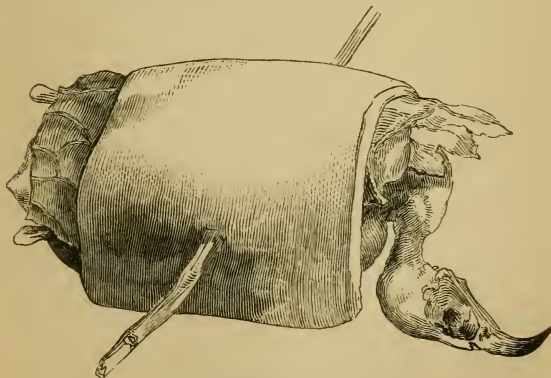
bold, with enough song to constitute a warbler; they live happily in confinement, neither loving nor fearing man. No bird becomes so fat as the Ortolan*; when in perfection, nothing is seen but fat, and the meat of the bird is invisible. But in fattening them we have the same intimation that nature will vindicate her sway, as we find in other cases when we attempt to alter her laws. It is our endeavour to fat them in April, May, and June, when we receive them in large numbers; but that is their breeding time, and it is not natural for them to get fat then. Whether they feel their captivity at a time when they should be propagating their species, I cannot pretend to say; but it is certain that during that time a fat Ortolan is a rarity, and to find six such, it is often necessary to handle as many fifties; whereas in July and August, especially the latter month, they are all fat: a cage containing twenty may be taken down, and found to have none but fat birds in it. Yet it is only nature makes the difference; the captivity, food, care, are all the same; and lest it should be said the bird has by the end of the season become reconciled to his lot, I have tried the experiment of keeping them on till another year, and have then found that birds caught in the previous year, and kept in cages for eighteen months, are identical in habits and constitution with those whose incarceration is more recent.

“In former times it was almost necessary to go to Paris to eat Ortolans; now (March, 1850) they are of

* Mr. Baily probably means “no captive or fatted bird,” for the Landrail would often rival the Ortolan in fatness. Mr. St. John (Tour in Sutherlandshire, &c.) tells us that, “Sometimes during the shooting season a Landrail rises in some very unexpected place, and they are then as fat as it is possible for a bird to be. The latest Landrail that I killed in 1847 was on the 6th of October, and a fatter bird of any description I never saw.”

little value : 1s. 6d. each. It would at first seem strange that their worth should be affected by political revolutions ; but it was so. In 1848, owing to the commotions and troubles in France, there was no sale for them in that country, which, till then, was the chief market for them, and the whole quantity was brought here, causing a glut, and reducing their price two-thirds."

But even with all this tremendous sacrifice they are not cheap food. Ortolans weighing three ounces each, at only 1s. 6d. the bird, give meat at exactly 8s. the lb., not reckoning the offal. This, however, is very different to a guinea each, or 5*l.* 12s. the lb. Goldsmith, therefore, only the more bitterly ridicules the braggadocio of Beau Tibbs, when he makes him say, " But I hope, my dear, you have given orders for dinner ; you need make no great preparations neither, there are but three of us ; something elegant and little will do ; a turbot, an Ortolan, or a — " no matter what costly viand ; and sets him down finally to feast on cow-heel.



Roasted Ortolan—natural size.

CHAPTER XII.

GULLS IN CAPTIVITY, AND GULLERIES.

Desirable pets.—Longevity.—Discipline of new-caught birds.—Reconciliations and confidences.—Good-natured, not stupid.—Hardy and accommodating, but not ascetic.—Requisites for a Gullery.—Voracity of Gulls.—Black-headed Gull.—Its mode of nesting.—Its eggs.—Domesticability of Gulls.—Their capture.—Application of the method to Geese.—The birds kept in Dr. Neill's Gullery.—Docility of Cormorants.—Chinese Fishing Cormorants.—Albatrosses.—Their capture.—Nesting-places.—Battues.—Dangers of a calm.—Principle of flight.

To residents in the Midland Counties of England and in the central regions of continental Europe, it may be suggested that Gulls and their near relations would supply a novel, amusing, and easily-procured set of ornamental occupants of their pleasure-grounds. The birds of this group, though varying greatly in size, and considerably in colouring, have still so much that is common to all of them, that as far as our present object is concerned, they may be spoken of in general terms. They are all very tameable and attachable, very full of fun and good-nature, very hardy, and very destructive of some things which it is not always convenient that they should be permitted to destroy.

Gulls, where they are free from accidents, no doubt live to a great age. When rambling along the west coast of Scotland, or steaming among its adjacent islands, I have seen individuals standing on ledges of the rocks, or launching out heavily into mid air if too near an approach is made to them, which were perfect patriarchs, shaming, both by their solid bulk, and plumage of more

than adult completeness, any Gulls that one has the honour of becoming acquainted with in South British sea-side excursions. How these venerable gentlemen and ladies would behave if caught and deprived of flight, we cannot say ; as they are seldom to be got at without first sending a rifle-ball through them, and not always then. But the young birds of the year, which are so easily to be had along our coasts from the time of the herring fishery till a little after Christmas, show a most cheerful and praiseworthy mode of encountering what can't be cured. Their discipline with us has been this. They come home packed in a hamper and half-starved. When taken out, they try hard to bite the fingers of whoever has the first handling of them, and would give a sharp gripe, if allowed. This is avoided by grasping them round the neck just at the back of the head. But this alone will not save the operator, as their claws are made for scratching as well as for swimming and running, and so they must be secured below as well as above. Some one else then takes the wing, and amputates all beyond the elbow joint, if it is wished really to prevent the bird from flying away. It is then put under a hen-coop, to collect its thoughts. By-and-by pieces of fish are given it : it will not look at them. Next morning, however, some have disappeared. A pan of water is introduced into the coop, and thankfully accepted, both for drinking and washing. Do Gulls drink *salt* water when they are out at sea for weeks and weeks together ? In confinement they drink *fresh* water plentifully and with enjoyment. Then, when the slave-owner's back is turned, the other pieces of fish vanish. Gully will do : he may wait an hour or two, or half a day. He is now hungry. Some bits of fish are thrown

in to him. He looks first at the fish, then at the cruel donor, the kidnapper and pinioner of birds; his eye is distrustful, eager, angry, amicable, all in quick succession. Down goes a morsel, then another. He glances at his enslaver, who stands looking on; no further harm is done, so he takes his next piece of fish and washes it in the water before swallowing it. Another is served in the same way; still no more harm from the horrid tyrannical man. He looks at him confidently, and would, if he could, say, "Well! here I am in prison: you're my turnkey; let us shake hands; quarrelling will only make bad worse; let's be comfortable together;" the kidnapper then throws the hen-coop on its back, and dismisses M. Gull on his parole d'honneur. And he is wiser than Smith O'Brien; he accepts his ticket of leave, and makes the best of a bad bargain.

It is the innate good-nature of Gulls, I believe, and not any folly or stupidity that can be deservedly attributed to them, which has raised the outcry and charge of *Gullibility*. They are *bons* in a sort of French sense; what the Norfolk rustics call silly-good-tempered. The ridiculous, laughing twinkle in the eye of a Gull who feels himself at home must be seen to be appreciated. A Gull of mine was missing, we knew not how. Some workmen on the place had their job stopped, and were sent about their business. In about a week comes a boy, "Sir, my father bought a Gull of a man that stood at such and such a crossways, and he thought you might like to have it." The basket was a loose twisted one; and through the sticks, and especially when the lid was just raised, I saw a bright eye peeping at me with a "How d'ye do? All right!"

"Halloo! my boy!" said I, "this is my Gull back

again! Open the basket, and turn him out into the courtyard, and tell your father to come and talk to me about it."

A bird that is no fresh-water sailor, but can revel in our gales as they blow hardest on their respectively most exposed coast, easterly, sou' westerly, nor' westerly, or north-easterly,—will not suffer from the inclemencies of a nobleman's park, a lady's pleasure-ground, a farmer's kitchen-garden, or a clergyman's paddock with a gold and silver fish-pond at one corner. Sweet are the uses of adversity. To one inured to storms, every port is a paradise. Great, too, is the force of philosophy. As to Aristippus, so to the Gull, all sorts of fare, and lodging, and company, are convenient. Fish falls short: never mind; rats, mice, frogs, dead sparrows, snails, worms, and beetles will do. Animal food is scarce for a time. "Well," he says, "I will not be above the other fowls; I will take my bread, and a bit of cheese, if you can spare it, and my barley-meal and water, and my boiled rice, and be thankful too. Of even water I can bear a short allowance, though in water I am in *one* of my elements. You remember how John Hunter has preserved the stomach of an ancestor of mine, who dined for some time on this sort of diet. Why should I be more fastidious than my forefathers? Reach me the porringer, and see how I will peck." *

* "I have observed that the Black-headed Gull eats a great deal of corn in the newly-sown fields; and I now find that the lesser Black-backed Gull does the same, as I shot one which had a handful of corn (oats and barley) in its crop, mixed up with worms, grubs, &c."—*St. John's Tour in Sutherland*, vol. i., p. 224. Aldrovandi says that in Liguria (the Riviera di Genoa) Gulls are (or were) very destructive of *olives*.

“Not but what,” *loquitur* Gull, “I like red-letter days, when we may eat meat in plenty, and even abstinence days, when we are confined to fish and *laitage*, better than a pure farinaceous penance, such as this. Yet if we have only water-gruel, we will have patience also. Water-gruel is better than even the purest of air to inflate the stomach. I shall still be a Gull, and not quite degraded to a Chameleon. But it is no matter of conscience with me; so do not expect from me more than I profess. I am a ravenous Protestant amidst a convent of Carthusians; and animal food I will not scruple to eat, if it come in my way, under whatever disguise. Therefore if your chickens, your ducklings, your turkey-poults, and your *faisandeaux*, disappear while they are taking their walks abroad in my presence, do not blame me, but the force of appetite which is in me.”

Dropping our report of Mr. Gull's apology, it may be stated that all Gulls, little and big, will, as soon as they arrive at nearly a twelvemonth's age, kill and eat any weaker creature that comes in their way. On this account they cannot be allowed to associate with other birds smaller than themselves in the aviary, but, if they are not the only feathered members of the establishment, must have a place to themselves. And they are so easily pleased that a Gullery is not hard to contrive. A pool of water, a little rockwork, a bed of sand and shingle, and a few yards of turf to repose on, surrounded by a light fence, and the thing is done. Grotto-work is an appropriate addition to the scene, and unwieldy geological specimens, or bits of ruins, may be grouped in the Gullery with good effect. A cave, the termination of which shall not be visible, may

be made to contain at its entrance the bathing-pond of the birds. If the stream which supplies this can be made to trickle down some overhanging rockwork planted with ferns, heaths, mosses, &c., the materials for a little bit of landscape are collected in a *tableau vivant*, which taste of average goodness can hardly help making pretty.

But though all Gulls are destructive, I do not know that they are quite cannibals; it is hard to prove that the large ones will eat the smaller individuals, as among fishes, or the wives their husbands, as among certain hawks and insects; but otherwise they are not particular. All swallowable vermin, whether quadruped, winged, or reptile, are soon made away with. A Shoveller Duck turned into a pond where a large Gull was established was shortly disposed of. And a large Black-backed Gull of my acquaintance, discovering that his master's cat had a fine grown litter of kittens, took one a-day, and only one a-day, from their mother as long as they lasted, in spite of her tiger-like maternal fierceness. The last remaining meal at the end of this series of kittens was in such prime condition, that it was swallowed with difficulty; and Gully was obliged first to break and crunch every bone in its body, before it could be got down. For fear this anecdote should not be credited, I will state that the fact occurred in the gardens of Lord (Baron) Stafford, Cossey Park, near Norwich. Other people's misfortunes are so easy to bear, that the poor cat got very little pity or help during her daily bereavements: indeed the kittens might as well be swallowed as drowned. But one day the gardener's daughter was washing a rabbit, already skinned, for dinner. Gully stood by watching the

process ; he waited till the young woman stepped aside for some household duty, and then dipped his head in the pail and made off with the prize. This was a different case from that of the kittens ; so the girls and boys had a chase round the gardens, to see whether Gully or they should have to go without a meal.

The smaller Gulls make the prettiest inmates of a pleasure-ground, but they are all equally mischievous according to their ability. About the most pleasing of them is the Black-headed Gull, *Larus ridibundus*, known in East Anglia as the Sea Cob*. The term, though provincial, is not a vulgarism, being used by Shakspeare. This species still breeds in the few localities in Norfolk in which they are strictly preserved ; otherwise they would soon be expelled from the county. They mostly make their nests on the ground, in low flat swamps ; but a relative, now no more, once took me to see his colony of Sea Cobs on Martham Broad, and all the nests which I there saw were not on land at all, but on the water. We rowed to the spot in a boat ; the birds were on the nests, it being then sitting time. As we approached, they rose in a little cloud, hovering over our heads with anxious screams. The nests were each attached to four or five stiff reeds and rushes, and so supported just above the surface of the water, which here was five or six feet deep. Those nests that had not been robbed contained the regular number of four eggs. We did not remain long, in order to avoid annoying the birds unnecessarily ; and, as we departed, they gradually descended from above, and soon settled on their eggs again. We did

* "*Larus Marinus* ; Anglicè, ut *Turnerus* interpretatur, *Seecob*, vel *Seegul*."—*Aldrovandi*.

not take any, as they were then useless for food, according to English, though not to Icelandic tastes. But before incubation has commenced, they are excellent eating, and are sold largely for that purpose during their short season, which lasts for about three weeks at the end of April and the beginning of May. Thirty or forty years ago they were sold in Norwich fish-market at the rate of four a penny, and even cheaper; but they have now risen to hen's-egg price, and even dearer. They are brought in much fewer numbers, and are appreciated accordingly. The fragility and thinness of their shell is a bar to their travelling long distances; but many are boiled, and sent away in that more secure state. These eggs are mostly covered with dark irregular blotches, on a brown, or olive, or sea-green ground; and it is curious that no two eggs are alike. A person unacquainted with them might suppose them to be laid by different species of birds.

When the first laying of four eggs is taken from a nest, the birds soon lay again; but the second laying is marked with much fainter colours, and sometimes is without any blotches, being all over of a pale sea-green, as if the colouring matter, secreted in the ovaries of the bird, had been exhausted by the unusual drain upon its powers. These Gulls return year after year to the same breeding-places; and, by the annual supply of eggs which they furnish, may almost be considered as part of the proprietor's live stock. If any set of circumstances should arise to make the true domestication of Gulls desirable (which with their natural diet, unsavoriness of flesh, and small annual increase, we can hardly conceive), I am not inclined to include the accomplishment of such an attempt in the list of impossibilities.

Many facts favour the scheme. Dr. Neill's Gull, which went off every year to breed, and then came back to his master again, shows a strong capacity for attachment to home. In spring Gulls with us will follow the plough in search of worms and grubs, as closely as Rooks do, and indeed in company with them. This year (1850) a pair of (I think) Herring Gulls have bred in the Regent's Park Gardens, and two young were reared. Such instances are probably not more frequently met with only because Gulls are mostly solitary captives.

The Herring season is, on the south-east coast, the grand season for catching live Gulls. Birds of the previous spring—for old ones are but seldom taken—get entangled in the nets, are made prisoners by the fishermen, and are brought ashore when the boats return. The boys also, who accompany their fathers, and are indulged with a fishing jaunt on the German Ocean, are very fond of angling for Gulls. A hook, or even a large bent pin, is baited with a piece of fish, and if the bird which takes it is dexterously struck before the bait is quite swallowed, little serious injury is done to the creature*. It is kept alive on board as a plaything, and, when the party lands, produces an addition of sixpence or a shilling to its ravisher's pocket-money. All live Gulls, in such hands, have, of course, the same market value. The rarest of the rare would go for the same money, or be bartered for the same value in kind,

* Mr. St. John was very nearly successful in *fly-fishing* for Gulls :—
“Once away from the rocks, we were safe enough, and rigging out a couple of strong lines with large white flies, we caught as many fish of different kinds as we could pull in during our way over to Cromarty. A large Gull made two swoops at one of the flies, and had not a fish forestalled him, we should probably have hooked him also.”
— *Wild Sports of the Highlands*, p. 125.

as the Kittiwake and the Herring Gull; and as the birds are in immature plumage, quite unlike what they will be three or four years hence, some ornithological knowledge is requisite to distinguish choice from vulgar birds. And the reader may be here reminded, that one great point of interest in a Gullery is to watch the progressive changes of the plumage, year by year, as the young newly-introduced birds advance towards maturity.

These sea-faring urchins, on their return from their cruise after herring, do not quite forget the tricks they have learned while afloat. Great Yarmouth is a famous place for geese as well as for bloaters. Most of the rope-walks that lie on the sandy plain between the town and the beach are closely pastured by those useful birds: and the boys, looking down from the windows of the adjacent fish-offices or sail-lofts, have sometimes fancied that they were again on board of the boats. Mistaking the Geese for the Gulls they had been used to see, they have baited a hook with bread for want of fish, and have hauled up a Gander or a Goose from the company of their wondering Goslings. But as the neighbours, perhaps the mothers of the boys, have generally been the proprietors of the ponderous game thus poached, such striking and heavy arguments have been employed to put an end to the practice, that it has never been persevered in. But a little frolic may be allowed to the youngsters. They are to be the future beach-men, who, winter after winter, are to risk their own lives for the rescuing of shipwrecked human beings and perilled property. A large proportion of them are sure not to die in their beds, but, fearless of danger to themselves, will sink eventually in the struggle with

death impending over others. So we will leave their grandmothers to give them a lecture—which they *can* do—on the crime of mistaking Geese for Gulls.

A Gullery may be made to contain other birds which are not exactly contained in the same genus, but are nearly allied in habits and disposition. Dr. Neill has kindly favoured me with notes of a few that have lived under his own eye:—

“The Solan Goose (*Pelecanus Bassanus*) I got from the Bass when not fully fledged. It became quite tame, and was allowed to frequent the Loch, and lived ten or twelve years with me. It took three or four herrings at a feed, but could subsist quite well on bullock's liver.

“The Fulmar (*Procellaria glacialis*) was brought me by Mr. Allan, from the island of Stibbild, but it would not tame, and survived only for one season.

“The Coulterneb (*Fratercula arctica*) I repeatedly got from the Bass; but I could not keep it over winter.

“The Eider Duck (*Somateria mollissima*) I had one opportunity of trying; but I did not succeed, although I know that others have been more fortunate.” [The Eider has bred and been reared at Knowsley.]

“At present (February, 1849) I have several species of Gulls, quite tame, including the Iceland Gull and the Skua, which are rare.

“The Icelandic Gull (*Larus Islandicus*) was caught when in its first year on the coast of Uist, and was presented to me by Thomas Edmonstone. Esq. of Burness. It has proved very tame and familiar, catching any food thrown to it, and following for more. The wings are very little longer than the tail, which is large and broad, and very pure white. The whole plumage of the bird

was at first streaked and clouded with brownish and greyish spots; but it is now of nearly a uniform bluish white colour above, the belly and tail white, the tail particularly so. It has now been three years at Canon-mills, and seems in its perfect plumage. It is, I believe, the only specimen ever tamed, for Mr. Gould and Sir William Jardine, who lately saw it, were of that opinion.

“A pair of Skuas (*Catarractes*) were sent to me by Mr. Laurence Edmonstone of Balta Sound (the brother of Burness). They have become quite tame, approaching and taking a bit of meat or cheese from the hand. They were so bold, and so ready to give battle, that I have been obliged to keep them in a fenced-off place with access to a portion of the pond.

“Two Herring Gulls (*Larus argentatus*) I got from Orkney in the state of *scories*, or young speckled birds. They are quite tame, have been two years at Canon-mills, and have already undergone a considerable change of plumage; but the final dress has yet to be assumed.

“Two specimens of the lesser Black-backed Gull (*L. fuscus*) I procured from Brenay in Shetland. They are equally as tame as the Herring Gulls, and associate with them. They are also undergoing a change of plumage.

“I ought to mention that above six years ago an abominable railway was forced through my little property here, and drained off my pond and my spring wells. After a tedious litigation, in which every award was in my favour, the railway company were compelled to form a new pond two feet deep, and to keep it supplied with water. Meantime, nearly all my aquatic birds perished, and my present stock are therefore recent acquisitions.

“On the pond I have three Cormorants (*Pelecanus carbo*) whose diving and traversing the bottom of the pond often amuse my visitors. In default of fish, they thrive well on bullock's liver. They sit much on a perch erected for them on the margin of the pond, and in the middle of it I have placed two genuine joints of the columnar basalt of the Giant's Causeway, rising above the water, where one of the birds delights to perch and makes rather a picturesque appearance.

“I see that I had omitted to mention that soon after the loss of my breeding Herons, I obtained a hen bird, which survived all the devastations of the railway, and about five years ago I got a cock Heron. Both are now perfectly domesticated, but have shown no indications of pairing.”—*P. N.*

Dr. Neill's mention of his Cormorants suggests another great fund of interest to be derived from the inmates of a Gullery; namely, that this genus of birds are not merely tameable but docile. The difference of disposition that exists between different sea-fowl is immense. We might at first believe them to be all equally wild and irreclaimable, but young full-grown Guillemots are so stupid as to allow themselves to be taken out of the water by hand. Once, when standing on Yarmouth jetty, I saw an individual of this species drifting along with the tide, and by descending some steps in the direction of which it was floating, I lifted it out of the sea without its attempting to escape. And yet it would not eat under its new circumstances, and I was obliged to turn it loose again at the end of two or three days' starvation. The bird is generally so sulky when caught, as to be difficult to keep alive in captivity. Whereas Cormorants, wary and cunning in a wild state, are, when made prisoners, soon at home, and even

capable of being trained to aid in the capture of fish. The Chinese Cormorant, which is specifically different both from our own and from the common Shag, is eminently teachable. The importation of a few couple, and the exhibition of their performances, would surely be an exciting event among the lovers of Natural History, after the public were cloyed with the Hippopotamus and the Snake charmers. And a recent clever traveller gives such a wonderful account of the manner in which they are kept and used, that I take the liberty of extracting it from the "Wanderings in China," for the sake of, perhaps, drawing more attention to the employment of these feathered fishermen. A *swim* of Cormorants, attached to a gentleman's establishment, would, in these days, afford more likely and practicable sport than a flight of Hawks and Falcons.

"The most singular of all the methods of catching fish in China," writes Mr. Fortune, "is that of training and employing a large species of Cormorant for this purpose, generally called the Fishing Cormorant. These are certainly wonderful birds. I have frequently met with them on the canals and lakes in the interior, and, had I not seen with my own eyes their extraordinary docility, I should have had great difficulty in bringing my mind to believe what authors have said about them. The first time I saw them was on a canal a few miles from Ning-po. I was then on my way to a celebrated temple in that quarter, where I intended to remain for some time, in order to make collections of objects of natural history in the neighbourhood. When the birds came in sight, I immediately made my boatmen take in our sail, and we remained stationary for some time to observe their proceedings. There were two small boats,

containing one man and about ten or twelve birds in each. The birds were standing perched on the sides of the little boat, and apparently had just arrived at the fishing ground, and were about to commence operations. They were now ordered out of the boats by their masters, and so well trained were they that they went on the water immediately, scattered themselves over the canal, and began to look for fish. They have a beautiful sea-green eye, and quick as lightning they see and dive upon the finny tribe, which, once caught in the sharp notched bill of the bird, never by any possibility can escape. The Cormorant now rises to the surface with the fish in its bill, and the moment he is seen by the Chinaman, he is called back to the boat. As docile as a dog, he swims after his master, and allows himself to be pulled into the *San-pan* (boat), where he disgorges his prey, and again resumes his labours. And, what is more wonderful still, if one of the Cormorants gets hold of a fish of large size, so large that he would have some difficulty in taking it to the boat, some of the others, seeing his dilemma, hasten to his assistance, and, with their efforts united, capture the animal and haul him off to the boat. Sometimes a bird seemed to get lazy or playful, and swam about without attending to his business; and then the Chinaman, with a long bamboo, which he used for propelling the boat, struck the water near where the bird was, without, however, hurting him, calling out to him at the same time in an angry tone. Immediately, like the truant school-boy who neglects his lessons and is found out, the Cormorant gives up his play and resumes his labours. A small string is put round the neck of the bird to prevent him from swallowing the fish which

he catches, and great care is taken that this string is placed and fastened so that it will not slip farther down his neck and choke him, which otherwise it would be very apt to do.

“ Since I first saw these birds on the Ning-po Canal, I have had opportunities of inspecting them, and their operations in many other parts of China, more particularly in the country between the towns of Hang-chow-foo and Shanghae. I also saw great numbers of them on the river Min, near Foo-chow-foo. I was most anxious to get some living specimens that I might take them home to England. Having great difficulty in inducing the Chinese to part with them, or, indeed, to speak at all on the subject, when I met them in the country, owing to our place of meeting being generally in those parts of the interior where the English are never seen, I applied to her Majesty’s consul at Shanghae (Captain Balfour), who very kindly sent one of the Chinese connected with the Consulate into the country, and procured two pairs for me. The difficulty now was to provide food for them on the voyage from Shanghae to Hong-kong. We procured a large quantity of live eels, this being a principal part of their food, and put them into a jar of mud and fresh water. These they eat in a most voracious manner, swallowing them whole, and in many instances vomiting them afterwards. If one bird was unlucky enough to vomit his eel, he was fortunate indeed if he caught it again, for another, as voracious as himself, would instantly seize it, and swallow it in a moment. Often they would fight stoutly for the fish, and then it either became the property of one, or, as often happened, their sharp bills divided the prey, and each ran off and devoured the half which fell

to his share. During the passage we encountered a heavy gale at sea, and as the vessel was one of those small clipper schooners, she pitched and rolled very much, shipping seas from bow to stern, which set everything on her decks swimming. I put my head out of the cabin door when the gale was at its height, and the first thing I saw was the Cormorants devouring the eels, which were floating all over the decks. I then knew that the jar must have been turned over or smashed to pieces, and that of course all the eels which escaped the bills of the Cormorants were now swimming in the ocean. After this I was obliged to feed them upon anything on board which I could find, but when I arrived at Hong-kong they were not in very good condition: two of them died soon after, and as there was no hope of taking the others home alive, I was obliged to kill them and preserve their skins.

“The Chinaman from whom I bought these birds has a large establishment for fishing and breeding the birds about thirty or forty miles from Shanghai, and between that town and Chapoo. They sell at a high price even amongst the Chinese themselves: I believe from six to eight dollars per pair; that is, from 30s. to 40s. As I was anxious to learn something of their food and habits, Mr. Medhurst, Jun., interpreter to the British Consulate at Shanghai, kindly undertook to put some questions to the man who brought them, and sent me the following notes connected with this subject:—

“‘The fish-catching birds eat small fish, yellow eels, and pulse-jelly. At 5 P.M. every day each bird will eat six taels (eight ounces) of eels or fish, and a catty of pulse-jelly. They lay eggs after three years, and in the fourth or fifth month; hens are used to incubate

the eggs. When about to lay, their faces turn red, and then a good hen must be prepared. The date must be clearly written upon the shells of the eggs laid, and they will hatch in twenty-five days. When hatched, take the young and put them upon cotton spread upon some warm water, and feed them with eel's blood for five days; after five days they can be fed with eel's flesh chopped fine, and great care must be taken in watching them.

“ ‘When fishing, a straw tie must be put upon their necks, to prevent them from swallowing the fish when they catch them. In the eighth or ninth month of the year they will daily descend into the water at ten o'clock in the morning, and catch fish until five in the afternoon, when they will come on shore. They will continue to go on in this way until the third month, after which time they cannot fish until the eighth month comes round again. The male is easily known from the female, in being generally a larger bird, and in having a darker and more glossy feather, but more particularly in the size of the head, the head of the male being large, and that of the female small.’

“ Such are the habits of this extraordinary bird. As the months named in the note just quoted refer to the Chinese calendar, it follows that these birds do not fish in the summer months, but commence in autumn, about October, and end about May, periods agreeing nearly with the eighth and third month of the Chinese year.”*

But the king of the Gullery has yet to pay us a visit, and when he does come, he will at once take the same pre-eminent rank as the Emeu in the paddock and the

* Fortune's China, p. 109.

Swan on the lake. No living Albatross, that I can learn, has ever reached this country; but the distance from the Cape is not so great but what we may entertain hopes of receiving his Oceanic Majesty, and, by all means, his imperial consort likewise, with a party of their royal offspring and relatives. Which is *the* king of the Albatrosses, among the numerous rival claimants to the throne (Mr. Gould says there are at least *forty* different species peculiar to the seas of the southern hemisphere), naturalists have not yet been able to decide. Any of them would be welcome, whether the expanse of their extended wings reached to the regal breadth of 12 or 15 feet, or only to the aristocratical measure of 9 or 10. With such instruments of locomotion, we may believe Mr. Gould when he tells us, that "The powers of flight with which these birds are endowed, are perfectly astonishing, and they appear to be *constantly performing migrations round the globe* from west to east; and Australia lying in their track, all the species may be found near its shores at one or other season of the year."* The globe, it may be remembered, is not quite so thick round in those parts as at the equator, but still it is a very tolerable circuit for them to make. They are very easily taken prisoners, and do not give quite the same trouble to catch as did the king and queen of the Auks to Mr. Bullock and his boat's company of stout rowers. "In February, one of the Albatrosses was brought to me, upon which I could not discover the slightest wound. On inquiring how it was caught, I was answered, *by the hand*. Upon a further investigation into the matter, I was assured by

* Introduction to the Birds of Australia, p. 114.

the Albutians unanimously, that in the calms, which commonly succeed to a violent gale of wind, they cannot fly; if pursued by land they will run to the water, endeavouring to escape by swimming, but then it is easy to follow them with the boidarkas, when they may be taken with the hand, or killed by a spear or the stroke of an oar.* But the modern mode of catching Albatrosses is exactly the same, except in being on a larger scale, as that practised by the Yarmouth fishing boys upon the unwary Gulls.

“Another amusement was the catching of Albatross, when the ship was hove to; this was done by attaching a line to a sail hook, fastening on a piece of fat, and causing both to float by lashing it to a bit of wood. This splendid, but fool of a bird, would pick it up; when he discovered his mistake, he would endeavour to raise himself out of the water, but all his exertions to free himself from the hook were unsuccessful, and he was hauled on board. When on the deck, he could not get up for want of wind under his wings, and with his enormous web feet he could scarcely stand. The Albatross is a magnificent bird, generally from 10 to 15 feet from the tip to tip of wing, a long powerful curved upper bill, and the plumage snow white; you see them several hundred miles from land, in high southern latitudes, but scarcely ever find this bird within the tropics.”†

A friend also writes an original account to a similar effect.

“I have succeeded in capturing the captor of the Albatross, literally a *wild* young man.

* Langsdorff, in Southey's Common Place Book, 2nd Series, p. 577.

† Coulter's Adventures in the Pacific, p. 26.

"It seems that these birds are almost always taken by hook and line, as was the case with the one you saw (stuffed). The hook is baited with pork, and the feathered monsters are quickly attracted by it. — told me, to my surprise, that the hook itself is never swallowed, but that it catches in the curve of the beak, and the bird is drawn up by that means. But he afterwards explained it by saying that, after taking the bait, they keep their wings extended at length, of course pulling backwards at the same time, which would give a fair hold to the hook. He had never known a case of their being kept on deck and fed, but said they had frequently had ten or eleven caught and on deck at the same time, so that they must take the bait as voraciously as sharks, and probably without so much cunning. When once on deck they are totally unable to rise in the air, not being able to gather sufficient wind beneath their gigantic pinions for that purpose. If the Albatross once contrives to rise from the water after taking the bait, which sometimes but not often happens, the game is lost at once. The specimen you saw at — was a young bird in immature plumage, that of the adult being white or very nearly so. I am sorry I could not obtain a more complete account for you, and also something of their habits and breeding-places; are not the Falkland Islands their chief haunts for this purpose?"—*H. H.*

That the Falkland Islands are thus used as Albatross nurseries, will appear from the following curious description of the nesting arrangements there:—

"The Geese, Penguins, Albatross, &c., who have colonized this place (the Falkland Islands), have very considerably for any ship's crew, and perhaps for themselves too, built their nests in streets of about two or

three miles in length, and three to six feet wide. This arrangement is very convenient in every respect. The birds can easily hold a conversation across this street, and the sailors can walk up the centre of it, beat them out of their nests, and march off with the good eggs, thoughtfully leaving behind two or three bad ones, as an inducement for the inhabitants to return to their homes after the invasion.

“After we procured about six or seven tons of eggs, killed a good many seal, shot a number of rabbits, and strung our rigging with Geese, we fired a twelve-pounder carronade for curiosity, to see how many birds would rise in sight. We got up our anchor, and left this decidedly capital place for food and fun.”*

Our next quotation is even more graphic.

“During the voyage, an occasional *battue* of the Albatrosses and other marine birds, which abound in the high latitudes between the Cape of Good Hope and Van Diemen’s Land, beguiled the leisure time. These *battues* partook of shooting and fishing, for sometimes we baited large hooks with bits of pork, and caught the gigantic birds by the beak. I remember one day seeing *twenty-eight live Albatrosses on the deck together*, many of them measuring twelve feet from tip to tip of the wings. Once on the deck, they cannot escape, as they have great difficulty in first rising on the wing. Some of us stored the white feathers, supposing from Nayti’s (a native) account that they would be highly valuable in New Zealand; others made tobacco-pouches of the web feet, or pipe stems of the wing bones; the naturalist made preparations of skeletons and skins to keep his

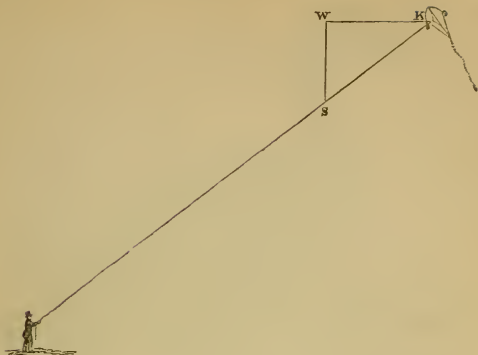
* Coulter’s Adventures in the Pacific, p. 23.

hand in, and the sailors prepared the carcasses in a dish called 'sea-pie.'”*

The Albatross, it appears, is safe in the storm, but helpless when becalmed; a fact bearing the same moral application as Hannibal's Capuan defeat and the fable of the Sun and the North Wind. When our Albatrosses shall have been surprised in their moments of ease and indolence, Mr. Gould points out the kind of sustenance they require, though any sort of fish diet would probably suit them. “It is but natural to suppose that this great group of birds has been created for some especial purpose, and may we not infer that they have been placed in the Southern Ocean to prevent an undue increase of the myriads of mollusks and other low marine animals with which those seas abound, and upon which all the *Procellariidæ* mainly subsist?”

That the Albatross with its great wings should be less able to rise from a level surface than a Pheasant or a Partridge with their short ones, is a paradox of easy explanation. All those birds that sail in the air with little or no visible motion of the pinions are sustained on high upon exactly the same principle as a boy's kite (whence in fact *its* name). Short-winged birds, such as the *Gallinaceæ*, are utterly incapable of this sort of kite-like floating upon the waves of the atmosphere; the wind drops, and down comes the kite, and so would the long-winged bird, if it did not alter its usual mode of flying. The horizontal force of the wind (represented by $w\kappa$) resisted indirectly by the tension of the string ks , is resolved into a perpendicular force sw , which supports the weight of the kite, and keeps it

* Wakefield's Adventure in New Zealand, p. 20.



from falling. With the hovering and drifting Albatross, part of the resolved force of the wind is employed in causing the onward motion of the bird, and part in keeping it from sinking, parachute-wise to the earth, and gravity, or the attraction of the earth, answers to the tension of the string of the kite; but still the string exists to all intents and purposes, as actually as if it were made of hemp or iron wire.

There is at work in the universe many an agent that is little suspected. A power is not the less potent and real because it happens to be unseen, nor even if it be included amongst the things that are absolutely invisible.



*Sandwich Island Bernicle (Bernicla * Sandricensis).*

CHAPTER XIII.

THE SANDWICH ISLAND GOOSE.

Stay-at-home travellers.—Home of the Sandwich Bernicle.—Natural disposition.—Its claims on our patronage.—Natural perfume.—Voice.—First historical notice.—Erroneous nomenclature.—Obstinate pugnacity.—A parallel.—Diet.—Weight.—Plumage.—Increase.

ONE great charm in Natural History is that it leads the student through such an ever-changing panorama of

* Cuvier says, "The Bernicles are distinguishable from the common Geese by a shorter, smaller bill, whose edges are not apparent beyond the extremities of the laminæ."

contrasted scenery, — amidst landscapes and water scapes,—from polar ghastliness, through tropical brilliancy, to equatorial oppressiveness,—to those regions where the fable of a man's losing his shadow is actually verified once every day. We are made to wonder how the Arctic Fox and the Musk Ox manage, not to bear with comfort,—for that seems quite out of the question,—but at all to get through their interminable winter of existence. Taking our notions from the fire-side, we are much better able to understand the enjoyments of those creatures even which delight to bask in any degree of heat, short of what will set them on fire,—in climates where dead bodies feel *hot* to the touch,—and where birds, if they incubate, would seem to do so principally for the sake of keeping their eggs *cool*, and preventing them from being roasted in the sun.

We now take a dashing sweep from the embowered rivulets, where we left the little glancing Kingfisher,—from the marshes, the meadows, and the shores of England, where we found the Bittern, the Quail, the Heron, and the Gull;—and after a long, long flight without sight of land, set foot at last upon a group of islands that arise in the midst of the Pacific Ocean. We then mark our prey in this remote solitude flitting over the uplands; just below the region of the mud-volcanoes, a few diminutive Geese are perceived, with bright black eye, nimble irritable gait, voice like the creaking of a rusty wheel, and bold and graceful power of wing. They are an inviting quarry, and must be added to our collection. We have them at last safe and alive in Great Britain; and we may as well confess an anxiety to interest our readers in this little-known and unpretending species, which, it may be feared, after

lying hid for ages amongst the unknown hills of Hawaii, seems destined to be discovered, to be apparent in life for a brief space, and then to vanish before the destructiveness of Man, leaving skeletons, stuffed-skins, preparations, and drawings, as the only record of its existence on earth. True lovers of Natural History have still an opportunity of protecting and preserving here a race of beings which, but for them, may soon pass into the catalogue of the extinct.

In March, 1850, the Earl of Derby having three supernumerary males of the Sandwich Bernicle, most obligingly forwarded one of them to me. He was a charming little fellow, apparently so tame and gentle that, after the first day or two, it was resolved to trust him with the free use of his wings, as soon as the next moult should be completed. The quills of one wing had been clipped for security's sake; but we may lay it down as almost an axiom that there is not, in the wide world a Goose which is not domesticable in the strict sense, while there does not exist, that we know of, a Pheasant which is. All Geese are therefore peculiarly interesting to those who are anxious to increase the feathered occupants of their pleasure-grounds, on account of this innate docility of disposition; and *this* species claims especial notice, as it must probably before long suffer complete extermination, now that the Sandwich Islands are likely to become a sort of watering-place to California, unless it be patronised by the proprietors of menageries, and survive by propagation in a domestic state. A party of half-a-dozen convalescent gold-finders, steaming over to Hawaii, rifle in hand, for a month's recreation, with powder and shot in one belt, and plenty of dollars in another, would make sad havoc among the

native game. Add to these dangers the onslaught of imported brute animals, such as rats, cats, dogs, &c., and the perspective view lying before the Sandwich Bernicle approaches to a vanishing point faster than a humane artist might desire. Only Oceanic birds and domestic poultry can, at the end of twenty years, be expected to have escaped the fangs of such a fierce army of immigrants.

We were surprised to discover, on handling our little Sandwich islander, that his whole plumage was agreeably perfumed with musk. It was as if some one in the room had suddenly displayed a scented handkerchief. The question arose whether this odour was peculiar to the male bird only, and whether it was constantly perceptible, or only seasonal. I am informed that both birds manifest it at all times of the year; but in a female, which Mr. Baily, of Mount Street, has obliged me by procuring, it is scarcely, if at all to be perceived; from a stuffed male, in the Norwich Museum, it has entirely evaporated, a proof that the source of the perfume is more deep seated than the skin and feathers. Although I have kept Musk Ducks for years, I cannot say that I ever was conscious of the scent from which they derive their name, not caring unnecessarily to handle such disgusting birds; you cannot touch Musk Ducks any more than you can handle pitch, without being defiled, and perhaps well scratched besides. But the Sandwich Bernicle is a cleanly creature, as well as an odoriferous one. Its corporeal emanations remind us of those proceeding from many of Mr. Gordon Cumming's victims during his murderous visit to the African Antelopes; their skin emitting a most delicious and

powerful perfume of flowers, trees, and sweet-smelling herbs.

Our poor solitary bird soon settled in his new home. He wanted much to make friends and enter into society with the common Geese; but they, having goslings, would scarcely allow him, and his disappointment was expressed by uttering sounds very like those proceeding from a rusty sign swinging in the wind; for another merit of these birds is that they are not noisy, like most Geese. What voice they have, though not melodious, is too weak to give annoyance by its discordance. We soon, however, had occasion to change our opinion as to the mildness and peacefulness of disposition in our little Sandwicher. They are certainly sociable creatures, like the generality of the *Anserinæ*, but no disposition has ever been observed in them to mix with any but their own kind.

The first recorded notice, by civilized man, of the *Bernicla Sandvicensis*, is given by Capt. James Cook a few weeks before he received his death-wound at Owhyhee. He had only a little while previously lost Mr. Anderson, the amiable and observant naturalist and surgeon to his ship, by a lingering consumption; otherwise fuller details might have reached us. But brief as it is, it is worth transcribing. Its date is December 22, 1778. "While we lay, as it were, becalmed, several of the islanders came off with hogs, fowls, fruit, and roots. Out of one canoe we got a Goose, which was about the size of a Muscovy Duck. Its plumage was dark grey, and the bill and legs black."

In ornithological books the earliest trace of the Sandwich Bernicle occurs in Dr. Latham, 1785. De-

scribing the China Goose, he says, "Our last voyagers met also with this, or one very like it, at Owhyhee," and quotes "A *Goose*, like the China Goose, at Karacakooa Bay, in Owhyhee, quite tame, called there *Na-na*."*

In Gray's edition of Cuvier (1829) the error is still continued. "Other Geese have been named, but are doubtful, as — *Anas Cana*, Cape of Good Hope," confounding Dr. Latham's confusion of the China Goose with some bird native of South Africa.

The Sandwich Bernicle, in truth, has been but little observed by voyagers, and a description of its habitat in great measure accounts for the omission. "On our visit to the sulphur banks we saw two flocks of wild Geese, which came down from the mountains, and settled among the Ohelo bushes, near the pools of water. They were smaller than the common Goose, had brown necks, and [the feathers of] their wings were tipped with the same colour. The natives informed us there were vast flocks in the interior, although they were never seen near the sea."†

It is hardly irrelevant to append to this Mr. Williams's remarks on Natural History in general. "It is to me a matter of regret, that scientific men, when writing upon these subjects, do not avail themselves of the facts which Missionaries might supply; for, while we make no pretensions to great scientific attainments, we do not hesitate to assert that it is in our power to furnish more substantial data on which to philosophize than could be obtained by any transient visitor, however profound in knowledge, or diligent in research."‡

* Ellis's Narr., ii. p. 143.

† Ellis's Missionary Tour through Hawaii.

‡ Missionary Enterprises, p. 203.

The male Sandwich Bernicle, although so much smaller than the common Gander, displays towards him, if allowed to join his family party, an implacable and unceasing enmity, jealousy, or aversion, which is exhibited by a continued course of persecution and annoyance, rather than by any violent and decisive attack. This offensive conduct is returned, though with somewhat less pertinacity, by the Gander, who seems as if he would be heartily glad to be relieved from the endless pushes, feather pluckings, and grinning insults (if a bird can grin) of the swarthy foreign dwarf. The one stares with his bright black eyes; opens his red lined mouth to its utmost gape, sticking out his tongue; contorts his fleecy little neck into snake-like curves, and *creaks* defiance with such feeble voice as he has; for it more resembles the noise of a long unused wheelbarrow, or of a dilapidated pump-handle, than the sound emitted by any English living creature. He seems inclined to patronise the Goslings, though it is doubtful whether he would pay the slightest polite attention to the Geese: but the Gander he worries from morning till night, and perhaps all night long too, if he has the opportunity. He is careless of being occasionally "floored" by his more weighty adversary, and of having his shoulders half-stripped of feathers by the rebuffetings he so well deserves; and it would thus appear impossible that the two species should live amicably together, and increase their kind, in the same inclosure.

Birds in their little nests agree [Cuckoos excepted];

And 't is a shameful sight

That Gander should with Gander be

So much inclined to fight.

It is neither size nor strength exactly which gives the supremacy in these struggles, but unyieldingness. *Chi dura vince*, says the Italian proverb. Constant dropping will wear out the most adamant heart of the bravest Gander; the everlasting nuisance grows to be insupportable; and it is thus that, without actual slaughter committed, one species of bird or beast will succeed in dislodging another from its rightful locality. Thus the Norway Rat seems likely to exterminate the old black British kind; the Red-legged Guernsey Partridge would, if permitted, establish itself on the grounds of the genuine gray old-fashioned sort; and the Silver Pheasant would act the same part, where it had the chance, towards the established species of our preserves. A parallel may be found in human life. The meaning of most speech uttered by the arrogant, the overbearing, and the grasping, is, "Depart; make room for me; emigrate! You see how crowded we are; seek space for yourself elsewhere; *this* place is mine, I cannot share it with you; seek *yours* in some other spot,—*where* I care not, or with what success, that is your affair,—*my* foot is planted here!" So the weaker body yields to the collision of the more persevering and powerful: the poor rolling stone goes on, too often gathering no moss, but is battered from pillar to post, drifted from shoal to rapid, till it sinks at last into some quiet earthy bed, to be rolled to and fro and ground to dust no longer. A little *vis inertiae*, or immovability, or spirit of resistance to the assumptions of impudence, is now and then quite necessary for *self*-preservation, and, as a consequence, for the preservation of those dependent on us. Squeezeableness is not a fortunate quality to be gifted with.

May it not be suspected that some species of the brute creation have thus been driven into domestication by their stronger comrades, and have taken refuge under the protection of Man, to escape the persecutions of their more nearly allied kindred, just as the Hare and the Dove have been known to throw themselves into our very arms, to avoid immediate death from the Hound and the Falcon ?



Gosling of Sandwich Bernicle.

The diet of the Sandwich Bernicle resembles that of its near relatives in every respect, *i. e.* grain and herbage. I have observed no sign of its eating worms or insects at any time. The male weighs $4\frac{1}{2}$ lbs. Bill black ; irides dark brown ; pupil black. Front of head black, extending behind the eye, and in a stripe down the back of the neck. Fore part of neck fawn colour, down to its junction with the body, where it is terminated by a

dark ring. Feathers of neck woolly, and clustered in tufts. Quill feathers blackish gray, darker towards the tips. Feathers of back and scapulars gray, each one having a dirty white band at the tip, giving somewhat of a barred character to the plumage. Belly dirty gray. A blunt spur at the elbow-joint. Tail black; under tail-coverts and parts about the vent pure white. Legs and feet black, with the webs much cut out. The female quite resembles the male, but is smaller; her weight is four pounds. They never have large nests, sometimes in this country sitting on as few as *two* eggs. The gosling is smoke-cloured. For the opportunity of figuring the one on the opposite page I am indebted to the Earl of Derby.

CHAPTER XIV.

CONCLUDING DIALOGUE.—THE NIGHTINGALE.

INTERLOCUTORS: CAMBRIAN, EAST-ANGLIAN, BIRD-CATCHER.

A country walk.—Local curiosities.—An agreeable surprise.—Limits of the Nightingale's migrations.—Topographical caprice.—The ravisher of Nightingales.—Particulars of capture.—Subsequent management.—Touching song and wakefulness of the bird.—Antique notions.—Effects of a Nightingale diet.—Enter bird-catcher.—Rural simplicity.—Diamond cut diamond.—The bird is caught.—Amount of its accomplishments.—Modes of causing their exhibition.—*Au revoir.*

CAMBRIAN. How I do enjoy this ramble! It is the very day for a walk. The delicate freshness of the green leaves is a most luxurious contrast to the naked twigs that for so long have been laden only with hoarfrost and snow-flakes. It is cheering to see the spring flowers once more spread out upon that shady bank—the lovely mixture of primroses and dog-violets—telling us, by signs on earth, how far the sun has advanced through the signs of the zodiac. The air is bright here, and clear; but I think it is colder, I had almost said keener, than we should feel it, if *you* were at this moment paying *me* a visit, and we were taking a stroll together on our Welsh coast, instead of through an inland Norfolk lane.

EAST-ANGLIAN. You expected such a climate when you came, did you not? I hope, too, you remembered it in packing your portmanteau, and included winter flannels as well as clean shirts in your travelling wardrobe. When the wind blows direct from the north, we have it genuine as imported; for there is not a bit of

land between us and the north pole to screen us and take off the chill from it.

C. Well, there is a sort of polar sharpness in the breeze: it feels almost as if one were in the extreme north of Scotland, except that they have no oak and hazel copses like this. Here you are without high hills to condense the mists (if mists can be floating in that bright blue sky), and so soften the air; and your surface water oozes down through the gravelly, craggy subsoil that has been thrown together somehow—for, you know, geologists say that Norfolk is only a heap of rubbish; your land is like the well-drained earth in a flower-pot half full of crocks; and I must confess that the effect is very invigorating to one so accustomed to the west of England as I am.

E.-A. Obligated to you for the rubbish! but you forget the chalk, which, where it replaces the gravel, equally renders the soil dry and the air pure. How healthy is the climate of the Wiltshire and the Sussex Downs!

C. *This* plantation looks as if it retained a little moisture, as far as one can see through the thick brambles and sloe-bushes. I should guess you would have glow-worms here, though they would hardly yet make themselves visible at night. It is too early at present for the *Johanniswurm*, or St. John's worm, to shine. It does sometimes begin to work its little lighthouse before St. John's day, but not often in England.

E.-A. Oh yes! Those transient earth-stars are to be seen glimmering here in due season; but, as you observe, the time is not yet come for them to compare their own ephemeral rays with the perennial stars of heaven. But we may perhaps meet with something of equal interest.

C. I suppose you mean the rare plants which you still have in Norfolk, the Parnassia, or the insect-orchids—the Bee-flower, the Spider-flower, and so on. But stop!—Hark!—What bird was that?—so loud, so clear, so sweet, and so close to us?

E.-A. They are come! Keep still and speak low, or it will stop.

C. I never heard the like before. This is something quite new to me. Exquisite! Most touching! The sweetest sounds, expressing what? sorrow? or is it joy? or is it love? I should like to see the creature.

E.-A. You may, but you will then lose your treat for a while. There, look! on that leafless oak-twigg, just above the entangled underwood, sits your charmer.

C. What! that dark, graceful, taper, little thing? It must be THE NIGHTINGALE! It darts away, and is gone!

E.-A. Never mind. You will soon hear either that again, or another. I thought I should give you a pleasant surprise, and am glad not to have been disappointed. It is very curious that you should not have Nightingales in *your* plantations as well as we in ours. There is no apparently valid reason to the contrary, but the range of the Nightingale in this country has its stated limits. Mr. Yarrell has defined them with considerable precision, namely, that it is not heard in the extreme west, in Cornwall, Wales, or Ireland; and he also gives Carlisle, and five miles beyond York, as the points of its furthest migrations on the western and eastern parts of England respectively. Mr. Blyth fixes the third degree of western longitude as its European boundary.

C. Can you in the least account for this invisible barrier between us at home and the Nightingale?

E.-A. Not at all. One can only guess that there may exist some unknown peculiarity in its constitution which makes it thrive on the chalk and the geological rubbish, and not do well on the granite and other ancient rocks. But the Nightingale is not only thus inexplicably bounded in its distant pilgrimages; even *within* those limits it is apparently capricious and local in its haunts.

C. Ah! That I was not aware of.

E.-A. We are now not more than two or three miles from my house, and you will expect, when we return there, that by throwing open the windows or stepping into the garden, we can hear the same sweet music that your curiosity just now put a stop to. But you will be disappointed. My grounds and meadows lie in a nook of land contiguous to two parishes which are consolidated into one living, but is not in either parish. In these two parishes Nightingales are sufficiently abundant, and are regular visitants; but, during the whole time that I have lived where I do, they have never crossed the boundary to me, to favour us with a song. During the season we can hear them singing lustily about half a mile off. The only natural line of demarcation between the locality they affect and that they avoid, is a shallow brook about two yards wide; and we have on this side of the stream everything which is supposed usually to attract them, namely, plenty of wood, water, red-ants, glow-worms, and quiet.

C. There must surely be some explanation of this last fact.

E.-A. Doubtless. The prime cause I imagine to be, that I am not far from a large city, and am therefore within such easy reach of the bird-catchers. Nightin-

gales appear to have so fixed an attachment to their old breeding-places, that they, and I suppose their successors, *will* annually return to the same haunts, and to no other. My hypothesis is, that the Nightingale family originally settled in my grove have all been caught off, to the last descendant, and no others can yet be induced to occupy the premises that are to be let on the easy terms of an occasional song. An enthusiastic fancier, Mr. James Wait, of the Hotel, Portishead, near Bristol, to whom I communicated the circumstance, suggests the same solution as the probable one. Shall I read you a portion of his letter?

C. By all means: it will while the way homewards.

E.-A. "I can readily account for the reason why the Nightingales did not cross the boundary of the parish in which you reside, although you have them so near. I know, from experience, that the birds will frequently build on the same spot, year after year, even although their nest be continually disturbed. When I was a boy at school in Middlesex, I was particularly fond (as most boys are) of birds-nesting; and although twenty years have passed, I feel positive that it would be no difficult matter for me to march to the very spot (if time has not removed it) where, year after year, I *always* found a Nightingale's nest. It was built in the remnant of an old stump of a thorn with a cavity shallowly hollowed out at the bottom. It was always a very conspicuous position where the habitation of this lonely bird was fixed, and too often disturbed by the molestation of cruel schoolboys like myself: still the Nightingales would come again the following year, and commence and recommence their hopeless task; and though continually doomed to disappointment, they never seem to be tired

in persevering to accomplish the object they had in view. I have found the Nightingale's nest in the woods near this house frequently, and if not on the very same spot, it seldom exceeded half-a-dozen yards off. About two miles from this place is a beautifully sheltered valley, in a part of a wooded plantation (it is called 'Nightingale Valley'), and the bird seems to be surrounded with more companions than in any other spot in the neighbourhood, although they may be heard in several places adjacent. About four or five years ago, a poor shoemaker in Bristol, who makes an annual journey thitherwards, was induced, through some deplorable fatality, to extend his art of Nightingale-catching to the woods adjoining *this* house. Previous to his coming, the bird was a regular yearly visitor with us, and always inhabited one particular tree, and from a window belonging to this hotel I have often watched the thrilling and throbbing movements of the songster's little throat. But the bird-catching shoemaker came and secured the bird, and I think two others that season. The next year we had no Nightingale's song to listen to, nor have had ever since.

"Accidentally, one of my healthy male birds escaped from his cage, and though the season of his song was over, still, more than once, as I passed, his reply to my call-note convinced me it was a convenient place of residence for him till the migratory season. I expected he would have returned again the following spring with a female companion, so as to make up for the deprivation occasioned by the shoemaker: but no such realization of my wishes took place—the woods here are as desolate of the Nightingale's song as though the echo of its silver tones had never been heard in Portishead.

One would have thought the young birds of previous broods, season after season, would have shown something like an attachment for the old spot; but, unaccountably, such was not the case. In vain do I stroll around the woods during the last fortnight in April and throughout the month of May, to listen to the song of the many kinds of birds that are always with us at that period of the year, but never since have been able to single out the stirring thrill of the Nightingale."

C. He writes in earnest; and it *was* a vexing shame. I should have been almost as much enraged with the spoiler as poor Macduff was at Macbeth's savage slaughter—

"All my pretty ones!

Did you say all? What, all? base catcher! all?"

Revenge is tempting; but to try whether the shoemaker could flounder out of a horse-pond after being assisted into it, on his next predatory perambulation, would be only shutting the stable-door after the steed is clean stolen.

E.-A. We shall soon see some shoemakers of the same sort at work hereabouts. They can do me no harm now. This is the time they are so anxious to make the most of, just after the first arrival of the birds. You are no doubt aware that the males of many of our migratory birds precede the females by several days; in the case of Nightingales, by about five or six. The males, on their arrival, are, I take it, in a state of single blessedness, and if captured in this condition, I believe they may in general be easily tamed and fed off; but if a male bird be taken after he has mated, he becomes exceedingly impatient of restraint, and either beats himself to death against his prison walls, or becomes sulky,

and dies of starvation. This at least may be relied on ; a captured bird has been known to become quite tame in four or five days, if taken before the arrival of the females. But they seem, like their kidnappers, to vary very much in temperament. Two birds caught on the same day have shown very different dispositions, one becoming quite tame almost at once, the other continuing shy and intractable for many months. A new-caught bird is generally placed in a large cage and covered over with green baize, which is gradually removed as he acquires confidence. To induce him to eat, hard-boiled egg and lean beef are minced together quite fine, and in the midst of the mess a wireworm is fastened to attract his attention. A little bruised hemp-seed may now and then be mixed with his meat and egg.

C. You seem to think I am going to take a Nightingale home with me by the minute instructions you are giving. Why do you not keep one yourself?

E.-A. They are too troublesome for me. I have known several people *attempt* to keep them, but from the great attention requisite, they have seldom been maintained in life longer than a single season. They require the utmost nicety in feeding and cleaning; living as they do on animal food, they soon become very offensive if not regularly attended to. Their food must be chopped fresh every day, and every other day at least the sliding bottom of the cage must be scraped and strewn with fresh sand. I do not want one here, because any time during the season I can go and listen to one: but you may, perhaps, like to gratify your countrymen with the sight and sound of the foreign vocalist.

C. Not a bad idea. I almost wish one of your ex-

pected bird-catchers would make his appearance. Let us halt a moment on this green wayside. From the hawthorn thicket there bursts another full, liquid gush of melody, powerful and yet plaintive. It is the wailing tone which is so new to me. Virgil may well say of him, "*flet noctem*," (he weeps the night through,) and then add the "*amissos fœtus*," (the lost young ones,) to make the picture consistent. It is a more imaginative way of accounting for a mournful strain, than the bodily suffering implied by the idea of the bird's leaning against a thorn during his vocal performance.

E.-A. Virgil is more sentimental than my fellow townsman, Sir Thomas Browne. The Philosopher is often a bit of a sceptic; that is, he fears falling into credulity. He is bold enough to say, "Whether the Nightingale's sitting with her breast against a thorn, be any more than that she placeth some prickles on the outside of her nest, or roosteth in thorny prickly places, where serpents may least approach her, experience hath made us doubt."

C. I can now appreciate all that has been said about the touching quality of the tone of voice. What has most surprised me in my classical readings about this bird, is its alleged sleeplessness. But I suppose it is all fabulous. According to *Ælian**, "*Hesiod* says, that of all birds the Nightingale alone abstains from sleep and holds a perpetual vigil." He adds that "the Swallow does not keep constantly awake, but loses of its sleep the half; and that they both pay this forfeit in expiation of the crime perpetrated in Thrace, that, namely, which occurred at their unhallowed meal."

* *Varia Historia*, xii. 20.

Procne and Philomela, like the modern Cenci, puzzle one to say whether they were justifiable or not. It was hard for Itys to have his Goose cooked in that fashion ; otherwise, Tereus deserves no pity. But, I presume, Philomel's rest is not so entirely broken now-a-days, and the pagans merely meant to give us their idea of the incompatibility between peace of mind and a heavy weight of guilt. The ancient myth shadows forth the unquietness of an evil conscience, and warns us of what we learn from Scripture : " There is no peace, saith my God, to the wicked."

E.-A. Nightingales, during the period of their song, *are* most untiring watchers, and it is difficult to know when they do sleep at that time. Regular and periodic rest they seem to have none. Their slumbers, if any, must be snatches of a few brief intervals. The live-long day, as well as the live-long night, do they pour forth their intermitting bursts of song. If they make any pause of longer duration, it seems to be towards the close of the afternoon. The night's performance does not weaken the display at early dawn. A just emancipated schoolboy told, with high glee, how one of his masters, an exiled Pole, used to rise early in the morning to enjoy the song of the Nightingales in the nursery gardens at Leamington Spa ; and that the jest of his going to hear a *Morningale* was sufficiently good to create mirth amongst the youngsters for a whole summer.

C. It certainly illustrates the minute amount of wit that suffices for schoolboys. Pliny, however, you may remember, makes the Nightingale's punishment much less severe than that assigned by Hesiod. "*Lusciniis diebus ac noctibus continuis quindecim garrulus sine*

intermissu cantus." (Fifteen continual nights and days are different to a whole life of unrest.) Ælian, in his gossip on the nature of animals*, makes the wakefulness of the Nightingale communicable to those who are guilty of eating its flesh, and so leads us to infer that inability to rest is an infectious disorder. "Λέγουσι δὲ καὶ τὰ κρέα αὐτῆς εἰς ἀγρυπνίαν λυσιτελεῖν." (And they say that the flesh of it tends to sleeplessness.) But he seems to think that such epicures are punished no worse than they deserve. "Πονηροὶ μὲν οὖν οἱ τοιαύτης τροφῆς δαιτυμόνες, καὶ αμαθεῖς δεινῶς." (Wretched are those that feast on such a viand, and untaught,—dreadfully so !)

E.-A. I am told that the Nightingale is an ill-flavoured bird, and that the taste, once known, is not easily forgotten. The last kind of pleasure we should now think of deriving from Nightingales is that of eating them. The idea never enters our thoughts, or, if it do, is at once rejected; the notion is as obsolete and extravagant as the Twelve Cæsars. Heliogabalus, and a few other worthies of his set, are almost the only epicures of the kind whom I remember.

C. They had some excuse; they believed that a dish of Nightingales, with their tongues and brains, was a sovereign remedy against that terrible disease, epilepsy, with which several of their family were afflicted.

E.-A. We must not boast our entire rejection of these absurd and superstitious medicaments; fried mice are still eaten in many parts of England, as an antidote to "fits;" snails as a cure for consumption; viper-broth is much out of fashion, but you know how highly it *was*

* Vol. i. p. 43.

esteemed. Perhaps, in abstaining from Nightingale feasts, we may be neglecting to take the goods the gods provide us; for, says Aldrovandi, "Although Joannes Bruyerinus asserts that Nightingales are not used as food by polite persons in our days, yet to myself at least, who formerly used often to eat them (*esitavi*), they have afforded neither an unsavoury nor unhealthy, although scanty dish." Were they to become the fashion at London dinners, they could be supplied during their season by the poulterers, at a rate not dearer than is paid for many delicacies, especially those out of season. I will not too strongly advocate *their* introduction to table, but it would be a good thing if M. Soyer, or some other philanthropic cook, could bring entrées of small birds more into vogue.

C. What! singing birds?

E.-A. Yes, singing birds; the mischievous creatures! You ought to know how good Larks are; and many a time when in Rome I have supped admirably after the opera off roasted Thrushes.

C. "It were a goot motion if we were to leave our pribbles and prabbles," as Sir Hugh Evans would tell you rather sharply; but you *will* have your swing.

E.-A. I have done, for here comes a bird-catcher; I know the cut of his gib well; he must be the son of the man of whom, years ago, I used to buy twopenny Linnets and threepenny Goldfinches, with their wings tied behind them, to save them from fluttering to death.

BIRD-CATCHER. Fine da', gen'lemin. Sarvint, Sar.

E.-A. How dy'e do, Mr. Coyham? Can you manage to catch us this Nightingale?

B.-C. Think I can, Sar, in about ten minutes.

C. Ah! *You're* a Norfolk man too, I find.

B.-C. In coose, Sar. Sullingim's my native. Glad *you* know my name and my trade, Sar. Sometimes they take me for one o' them there poachin fellers, that slink about arter Pheasant's eggs; but *I* niver go a water-creasing, and then come home with a rare big basketful,—greens a' top, Sar, and ducks at the bottom. Folks that *don't* know me, warn me off their primmises now and then, and I'm 'bliged to hide up in a deek for a da' or so, to git a ba'd that I *will* have. But here, ye know, Sar, I've the Governor's leave, ever since the Rural sarved me that there trick. I don't mean the Dean, Sar, *I* mean the Police. *He's* gone now, but they ha' got another. He used to live in one o' them there housen, up o' the loke up yinder, next door to m' aunt and m' uncle. They put me up to him.

E.-A. Ah! They're a neat set.

B.-C. Very nate indeed, Sar, with ther rosy faces and ther bootiful whiskers. They shave twice a week regular; three times, if they want to git a poor feller's secrets out o' the gal he keep company with.

C. You seem to have a high opinion of them.

B.-C. Yis, Sar, and well I ma'. One da', when I was here all alone arter some Draw-waters, up come the Rural, lookin very knowin. "I sa', bor," ses he, "I want a hare very bad; can't yow happen o' one?" "I do n' know," ses I, "I'll see what I can du. Per'aps yow'll be here agin to-morrer." So away he walk, as if the lane was *his* property, instid o' the Governor's. The Governor was 't 'ome, so I went and told 'im the good-lookin Rural with the bootiful whiskers wanted a hare. Law, Sar! how he did bl—t and swear! He called 'em a set of—Jinnizerries. "Coyham, bor," ses he, "I'll

tell ye what to du. Here 's half-a-crown: du yow go to the citty, and buy a nice hare, and git a bill for it; and ha' the bill reseated; be sure, bor, yow take care o' that." Next da', up come the Police, kind o' smilin'. "I 'a got a hare for ye," ses I. "How much is it, bor?" ses he. "Two shillins," ses I. "'Tha 's *tu* much," ses he. "Don't sin golderin about no sech nonsense," ses I; "there 's the hare, and I 'on't take no less. If you don't like it, you may lump it." So off he go, right over that there midder, with the hare in his pocket.

In a da' or two, he come agin, with his hat cocked o' one side, and sa', "Yow must go along o' me to the Magistrate's Setten, about that there hare. Yow 'll hear futher about that." "Very well," ses I, "I ha'n't no objections. Other folks can see jest as far into a millstone as yow, with all your know." So when the gen'lemin were a goin to hear *my* case, I pulled out the bill riddy reseated, and pruvved that I 'd sold the hare agin at a loss, all to oblige the nice-lookin Police. And this was what I got by it! I only wish, Sar, you 'd 'a seen how white the feller turned; the duddy fule!

C. Well, but of course he was punished for tempting you to break the law. What did they do to him?

B.-C. *Du*, Sar? Change o' air, Sar, tha 's all. He 'd a right to foller *his* trade, same as I have to foller mine. He 's now walking about arter other hares ten miles off. Some folks said he owt to be discharged; but they niver do that; per'aps they dussen't. When rogues fall out, Sar,—you know the rest. The Governor up yinder sa' the Rurals may du anything, except murder, and they 'll soon take out a licence for that.

C. I hope they won't, though, till I get back to Wales

again. I did not like to interrupt the story, but what does he mean by "I say, *bor?*"

E.-A. "Bor," in our dialect, is a defective noun masculine of address, used only in the vocative case; "mor," is the corresponding feminine. If I were to give orders to two of my servants, "John, bor, do this; Mary, mor, do that," they would quite understand the phrase, though they might smile at *my* using it. "Mor," however, *has* a nominative case, which is "mawther," a country girl. But we shall lose the Nightingale.

B.-C. Niver fear, Sar; I've baited *my* trap better than the bootiful Police did his. Yow'd 'a thowt he'd a slumped into a pritty mess, wouldn't ye, Sar? No sech a thing in the book! This here, gen'lemin, is a lively meal-wurrun, an' 'll be *sartin* to take. Keep yow still! (*Bird-catcher steals into the copse where the bird is singing, places the trap upon the ground, steals further on, and whistles a low plaintive note; Nightingale hears, and follows in the same direction, sees the meal-worm, marches deliberately up to it, tugs at the bait, causes the trap to fall, and is caught.*) There, Sar, he's a nice 'un, and I've got him good tidily quick.

C. Simple creature! How his little heart beats! But will he be a *good* bird when I get him home?

B.-C. Can't answer for that, Sar, as yit; we didn't hear enough on him. They 'on't all on 'em turn out alike. Some ba'ds sing like Jenny Lind, and other some no better 'an a mawther.

E.-A. You remember Pliny makes their singing a matter of skill. "Ac ne quis dubitet artis esse, plures singulis sunt cantus, nec iidem omnibus, sed sui cuique."*

* Lib. x. 43.

C. But if you were to rear one from the nest, or to catch one as soon as it began to shift for itself, how would that turn out?

B.-C. Good for nothin at all, Sar. It might have a few natural notes, and besides them, a bit of a whistle, or a chirp of a Sparrow, or anything else it could catch up, but very little o' the Nightingale. Yow 'd best let me bring you a good ba'd a fortnight hence, when he 's fed off and got tame. You know he 'll always be a little shy, and you must be careful not to let him be much looked at and frightened. Towards September, when he ought to be goin away, he 'll be very restless, and hop about the cage nearly all the night, and flutter violently. You must have a proper Nightingale's cage, with the top to take off, and you can put a piece of green baize there instead.* This will go on for two or three weeks, and at Christmas time he 'll begin singing again.

C. How long may I expect to keep him, do you think?

B.-C. I know a man that had one for ten years, but he was very careful and tended it hisself. That 's the only way to be sure. You may give him German paste if you like, but mutton or beef well scalded, and cut up with hard-boiled egg *every morning*, is the chief food of caged ba'ds, and they soon become very fond of it. You

* The cage generally used is made of thin mahogany, having the appearance of a box. The front is composed of brass wire, and a broad strip of wood runs across it, both at top and bottom, so that the place of confinement is made very dark, in accordance with the habits of the bird. It is not uncommon to have the front of the cage (which is the only part left open) covered with thin green baize, and the darker the habitation the bird resides in, the longer and the louder he will sing. So treated, he escapes the gaze of curious persons, which at times causes great excitement and timidity.

must keep the bottom of the cage very clean, and when you can get it, strow it with mould full o' little red ants. The Nightingales here almost live on 'em. If you want him to sing when he is quiet, some particular noise will often make him. In my back 'us there 's a water pipe, and three times out o' four I could make a ba'd sing by turning the cock and letting the water run; or if a ba'd is alone in a room, and a person choose to leave the door a little open, and rub his foot on the floor and make a scraping noise, he will mostly begin to sing directly.

E.-A. That is very like our Sedge-warblers at home. They will often sing if we call to them, and even if we throw a stick amongst the reeds where they are hidden.

B.-C. I don't know that there is anything more that I need tell you, Sar. If you give me an order, I promise ye *yow* shall have a good 'un.

C. If you please; I will depend on your bringing it ten days hence. So now good afternoon to you.

B.-C. Good arternune, Sar.

E.-A. We must walk briskly, after having lingered so long. You have seen my Dovecote and my Aviary, and to-day you have caught a Nightingale. I hope we shall be back in good time for dinner; an ichthyological study awaits you there, a dish of Smelts. I think you will say they bear comparison with Trout.

I N D E X.

- ÆLIAN on Pigeons, 19, 61; the lean poet of Cos, 91.
- ALBATROSS, 420; battues of, 423; mode of catching, 421; its mode of flying, 424.
- ALDROVANDI on the Halcyon, 298; Pigeons, 82; Storks, 339; Water Hens, 289.
- ALMOND TUMBLERS, 115.
- ALEXANDRINE PIGEONS, 17.
- AMERICA, Curassows in, 239, 242; Pigeon-fanciers in, 15; Passenger Pigeons of, 215; natural productions of, not suited to the English climate, 259; Crested Turkey in, 276.
- ANACREON's Ode to a Dove, 20.
- ANCIENT Authors on Pigeons, 18; use of Pigeons as letter-carriers, 19; pigeon-houses, 26; charms for Doves, 31.
- ANECDOTES of a Bantam Cock, 95; Bitterns, 332; Blue Rock Pigeons, 153; Collared Turtle, 177; Domestic Pigeons, 142, 148; Fantail, 89; Guans, 263; Herons, 308, 321; Jacobine, 106; Kingfishers, 300, 305; Passenger-Pigeon, 216; Powder, 124; Quails, 386; Water Hens, 284, 288, 291.
- ANIMAL DEVELOPMENT, Theory of, 68, 167, 176.
- ANTWERP breed of Carrier Pigeons, 127.
- APOCRYPHAL ANIMALS, 274.
- ARABIAN LEGEND, 11.
- ARCHANGEL PIGEONS, 99.
- ARISTOTLE on Pigeons, 17.
- AUSTRALIA, abundance of Pigeons in, 14; heat in, 201; Leipoa of, 65; peace-tokens in, 10.
- AUSTRALIAN Kingfishers, 202, 310; Emeus, 354.
- AUSTRALIAN PIGEONS, 190; none yet domesticated, 192; Bronze Winged, 194; hopes for their becoming domesticated, 199; Crested Marsh Pigeons, 200, 211; migratory habits of, 201; Graceful Ground Dove, 209; Ground Doves, 205; reared in England, 208, 212; Harlequin Bronze Wing, 205; Speckled Dove, 209; ventriloquism of, 204; Wonga-Wonga, 192.
- AVIARY of various birds, 304.
- BAGDAD, Carrier Pigeons at, 127.
- BALDPATES, 119.
- BARBS, 111.
- BASKET for Pigeon nests, 40.
- BEAU TIBBS's Ortolan, 401.
- BEAUTY of the works of nature, 7.
- BELGIAN PIGEON RACES, 136.
- BERNICLE, SANDWICH, 428; mentioned by Capt. Cook, 430; diet, 434; odour, 429; plumage, 434; violent temper, 432.
- BIRDS in captivity, 303.
- BIRD-CATCHER, 447.
- BITTERNS, 325; cry, 326; in captivity, 331; in the Marram Banks, 328.
- BLUE ROCK PIGEONS, 10, 150; anecdote of, 153; value of a colony of, 157; crossed with Carriers, 156; gregarious, 155; haunt the sea-side, 157; of India, 163; at Malta, 158; plumage of, 161; in Sutherlandshire, 159; unchanged by taming, 15; Varro's description of, 151.
- BLYTH's account of Blue Rock Pigeons, 163.
- BORROW's Bible in Spain, 48.
- BOYS' Pigeon-houses, 3.
- BRAZIL, Curassows in, 242.
- BREEDING of Pigeons, 55.
- BREEDING-PLACES for Pigeons, 39.
- BRONZE-WINGED PIGEONS, 194; guides to water, 196; beautiful plumage of, 196; ventriloquism of, 204.
- BRUTUS, use of Carrier Pigeons by, 24.
- BUFFON: theory of the domestic animals, 73; on Storks, 315.
- BUILDINGS resorted to by wild birds, 27.
- BYAM on the Crested Turkey, 276.
- CAPUCHINS, 103.
- CARRIER PIGEONS, 19, 126; Antwerp breed, 127, 137; of Bagdad, 127; employment of, 127; English breed, 139; experiments with, 131; organ of locality in, 130; their Oriental origin, 140; races with, in Belgium, 136; given to Sir John Ross, 134; travel by sight, 133; used as agents of superstition, 21; in Turkey, 133; used in warfare, 24.
- CASSOWARY, 354.
- CATO, on fattening Pigeons, 28.

- CHARACTERISTICS of the Columbidæ, 1.
 CHARMS for the protection of Doves, 31.
 CHINESE CORMORANTS, 415.
 CHRISTIAN VIRTUES, typified by Doves, 2.
 CLASSIFICATION of Pigeons, 70, 85.
 CLERICAL Pigeon breeder, 48.
 CLIMATE of Norfolk, 436.
 COLLARED TURTLE, 12, 174; afford excellent eating, 175; anecdotes, 177; habits, 179; time of incubation, 184.
 COLUMBA æfinis, or Dovehouse Pigeon, 153; livia, or Blue Rock Pigeon, 152; risoria, or Laughing Pigeon, 174; turtur, or Turtle Dove, 174, 189.
 COLUMBIDÆ, characteristics of, 1.
 COLUMELLA, on Pigeons, 18; on Dovecotes, 31.
 CORMORANTS, 414; Chinese, 415.
 CORREDO, or Curassow, 223.
 CORT-BEKE, 107.
 COS, Poet of, 91.
 COURTSHIP of Pigeons, 55.
 CRACIDÆ, 223.
 CRANES, 320.
 CRAVATE Pigeon, 107.
 CRAVAT of the Jacobines, 105.
 CREATION BY MAN disproved, 74, 230.
 CRESTED MARSH PIGEONS, 200, 211; reared in England, 212.
 CRESTED TURKEY, 274; a freak of nature, 275; discovered in Central America, 276.
 CROPPERS, 121; known to Pliny, 123.
 CROSS-BREDS, not new creations, 78; follow the father, 88.
 CRUELTY to animals reproated, 316.
 CURASSOWS, 223; Dampier's account of, 223; want of information regarding, 224; high prices of, 225; can they be domesticated in England? 224; stated to have been domesticated in Holland, 233, 242; their introduction into England desirable, 233; but not probable, 239, 244; tamed, but not domesticated, 240, 244; long known in Europe, 235; in America, 239; in Brazil, 242; eggs, 241, 244; habits, 234, 238; nests, 240; plumage, 241.
 DACELO, or Laughing Jackass, 311.
 DACTYL-SOUNDING QUAIL, 374.
 DE BERANGER'S Satire on Pigeons, 138.
 DEVELOPMENT, animal, theory of, 68, 167, 176.
 DIFFICULTY of retaining Pigeons, 52.
 DINORNIS, or Wonder Bird, 362.
 DOMESTIC ANIMALS are distinct races, 72, 167.
 DOMESTIC PIGEONS, 86.
 DOMESTIC AND WILD PIGEONS, 150.
 DOMESTICATION of Pigeons—its antiquity, 11; sorts incapable of, 187.
 DOVE, characteristics of the, 1; Blue Rock, 10; of Mahomet, 23; ode to a, 20; presented to the Queen at Dublin, 185; Rock, 13; Turtle, 13.
 DOVECOTES, in ancient times, 31; various kinds of, 36; as described by Varro, 50.
 DOVEHOUSE PIGEONS, 152; distinct from the Blue Rock Pigeons, 166; employed as nurses, 173; used in Pigeon matches, 168; nesting places, 163.
 DUFFERS, or Dovehouse Pigeons, 166.
 DUTCH PIGEON FANCIERS, 33.
 EARLY domestication of Pigeons, 11; use of Fancy Pigeons, 16.
 EGGS of Curassows, 240; Gulls, 409; Pigeons, 5, 63, 142, 214; Water Hen, 296.
 EMIGRANTS, value of a dovecote to, 14.
 EMEUS, 352; mode of capturing, 356; diet, 372; probable extinction of, 354; habits, 370; incubation by the male, 370; at Knowsley, 369; plumage, 372; tameness, 359.
 EXPERIMENTS with Carrier Pigeons, 131.
 EXTINCTION of native animals, 354, 360.
 FANCY PIGEONS, 16; ancient use of, 16.
 FANTAILS, 86; not much sought after, 91; peculiar motions, 89; powers of flight, 87; tails, 87, 90; Peacock Pigeons, 90; Shakers, 89.
 FATTING of birds, 28, 394.
 FEATHERS, growth of, in Pigeons, 59.
 FERAL PIGEONS, 15.
 FIDELITY of Pigeons to their mates, 56.
 FIRST SETTLEMENT of PIGEONS, 53.
 FLOCKS of Pigeons—their enormous extent, 5; in India, 14; of Quails, 376.
 FLOOR OF DOVECOTE, how to be covered, 42.
 FOOD of Domestic Pigeons, 146; of young Pigeons, 36; of foreign Pigeons, 220.
 FOREIGN PIGEONS, care of, 220.
 FORTUNE'S "China," 415.
 FREAK OF NATURE, 275.
 FRIENDSHIP of PIGEONS for the Kestrel Hawk, 30.
 FRIZZLED PIGEONS, 141.
 FULLER'S "Holy State," 56, 62.

- GALL, DR., on animal instinct, 130.
 GALLINACEÆ, characteristics of, 1.
 GALLINULE, or Water Hen, 282.
 GEOPHELIA, or Ground Dove, 205, 209.
 GEOPHAPS Plumifera, 211.
 GLOW-WORMS, 437.
 GOOSE, Sandwich Island, 426.
 GOULD'S Birds of Australia quoted, 192, 195, 210, 229.
 GRACEFUL GROUND DOVE, 209; the smallest Pigeon existing, 210.
 GRALLATORES, or Waders, 313; of India, 315.
 GRATITUDE of Storks, 337.
 GROUND DOVES of Australia, 198, 205; of Jamaica, 220.
 GROWTH of young Pigeons very rapid, 109.
 GUANS, 245; can they be domesticated in England? 251, 256; reared in Holland, 254; repeated attempts to rear them in England, 258, 266; at Knowsley, 255; at the Zoological Gardens, 261; food, 262, 271; habits, 263, 268; singularity of their windpipes, 248.
 GUINEA FOWL, 72.
 GULLS, 402; great age, 403; good nature, 402; management of in captivity, 403; eggs, 409; food, 405; tameable and docile, 414; voracity, 406; Herring, 410; Icelandic, 412; Skuas, 413.
 GULLERY, 406.
 HABITATIONS of Fancy Pigeons in ancient times, 26.
 HALCYONS, 298; nest, 299.
 HARDINESS of young Pigeons, 7.
 HARLEM, siege of, 26.
 HARLEQUIN Bronze-winged Pigeon, 203, 205; discovery of, 206; bred in England, 208.
 HAWK, friendship of Pigeons for the, 30.
 HELMETS, 119.
 HELPLESSNESS of newly-hatched Pigeons, 58, 64.
 HEN PIGEONS will pair together, 60; widowed, 61.
 HERONS, 320; anecdote of, 308; in captivity, 321.
 HOCOS, 257.
 HOLLAND, Curassows in, 233, 242; Guans in, 254.
 HONEYMOON of Pigeons, 55.
 HORSEMEN, 126.
 HOUSES for Pigeons, 37.
 HUMMING-BIRDS, beauty of, 8.
 HYBRID PIGEONS, 184.
 ICELANDIC GULL, 412.
 INCREASE of Pigeons, 5, 35, 57.
 INCUBATION of Pigeons, 56.
 INDIA, wild Pigeons in, 14.
 INSTINCT in Carrier Pigeons, 129.
 ISPIDA, or Kingfisher, 298.
 JACKASS, Laughing, 311.
 JACKS, 103.
 JACOBINES, 103; unproductive and unsteady, 103; description, 105; picture of, 106.
 JAMAICA PIGEONS, 220.
 JERUSALEM, siege of, 24.
 KANGAROOS, 67, 355.
 KESTREL HAWK, 30.
 KINGFISHER, 297; the Halcyon of the ancients, 297; anecdotes, 305; aviary, 303; beauty of their plumage, 300; in captivity, 302; cry, 311; food, 301, 305, 306; habits, 300; pug-nacity, 307; selfishness, 308; exist without water, 310; African, 310; Australian, 202, 310; Laughing Jackass, 311.
 KITES, a species of Tumbler Pigeons, 115.
 KNOWSLEY, aviaries at, 237; Australian Pigeons, 212; Cranes, 320; Curassows, 238; Emeus, 369; Guans, 255, 272; Sandwich Bernicle, 428.
 LACE PIGEONS, 141.
 LAPWINGS, 317.
 LARUS or Gull, 402.
 LAUGHING DOVES, 180.
 LAW for protection of Pigeons, 48.
 LEGHORN RUNT, 147.
 LEIPOA ocellata, 65.
 LETTER CARRIERS, Pigeons used as, 19, 127.
 LETTER DOVES of Bagdad, 128.
 LIFE, a progress, 4.
 LOCALITY, bump of, in Pigeons, 130.
 LONG-TAILED SENEGAL DOVE, 218.
 LUMACHELLE PIGEONS, 197.
 MAHOMET'S DOVE, 23.
 MARABOUS, 315.
 MARRAM BANKS, 328.
 MATCHES—Pigeon shooting, 168; at Paris, 171.
 MIGRATIONS of Quails, partial, 381.
 MOAS of New Zealand, 364.
 MOORE'S Ode to a Dove, 20.
 MOSAIC of Doves, 29.
 MUSIC of Nature, 376.
 MUTUNS, or Curassows, 239.
 NAPIER, on Pigeon shooting in Malta, 158; on Quail shooting, 377.
 NATURALISTS, absurd theories of, 314.
 NESTS of the Curassow, 240; Halcyon, 299; Pigeons, 62; Water Hen, 295.
 NESTING-PLACES for Pigeons, 38.
 NEW ZEALAND, Wonder-Birds of, 362.
 NIGHTINGALES, 438; cage for, 451.

- NOAH—The Pigeon sent out of the ark by him, 9.
- NUNS, 100; beautiful plumage of, 102.
- OLIVE BRANCH—Universal token of peace, 10.
- ORACLES, use of Pigeons for, 22.
- ORNITHOLOGY, small results of its study, 227.
- ORTOLANS, 394; diet, 399; fattened for table, 396, 400; plumage, 398; prices, 399; York dish of, 397.
- OWEN'S (Professor) Notes on the Moa, or Dinornis, 362.
- OWLS, 108.
- PAIRING OF PIGEONS, 60; mode of inducing, 144.
- PAN for nests, 40.
- PARADOXICAL INCREASE of Pigeons, 5.
- PARAGUAY GUAN, 249.
- PARIS, Pigeon matches at, 171.
- PASSENGER PIGEONS, 215; nests, 5.
- PEACE, tokens of, 10.
- PEACOCK PIGEONS, 90.
- PEEWITS, 319.
- PENALTIES for destroying Pigeons, 49.
- PENELOPES, or Guans, 245.
- PERFORMANCES of Tumbler Pigeons, 114.
- PERUVIAN BARK, 361.
- PETRE'S (Colonel) Pigeon-house, 46.
- PHAPS, a genus of Pigeons, 195.
- PIGEONS, ancient mode of fattening, 27; Arabian legend regarding, 11; attachment to their home, 145; breeding, 55; chick, 58; classification, 70, 85; courtship, 55; crosses, 125; different kinds of houses for, 36; difficulty of settling, 52; domesticated in the earliest times, 11; eggs, 5, 63, 142, 214; favoritism towards their young, 142; usual food, 36, 146; friendship of, for the Kestrel Hawk, 30; guides to water in Australia, 196, 204; habitations of, in ancient times, 26; newly hatched, 58; not found in the hieroglyphics, 16; high prices, 18; must have a home, 35; incubation, 56; instinct, 128; used in the Jewish sacrifices, 12; laws regarding, 49; used as letter carriers, 19; localities, 14; management, 34; used in medicine, 173; misuse of the name, 71; mode of feeding, 41; may be reared by the mouth, 174; nests, 62; sent by Noah out of the ark, 9; pairing, 60; paradoxical increase, 5; feeding-places for, 38; pleasure of keeping, 2; plumage, 8; quarrels, 142; red feet of, 11; salt and water for, 42; mentioned in Scripture, 9; best sort to keep, 147; thirstiness, 145; tithes of, 47; value of, as provision, 13; ventriloquism, 204; used in warfare, 24; warmth, 172; worship of, 22; young, 36; young of, 7; feed their own young, 35; helplessness of their young, 64; rapid growth of young, 109.
- PIGEONS, Almond Tumbler, 115; American, 15, 215; Archangels, 99; Australian, 190; Bald-Pates, 119; Barbs, 111; Blue Rock, 152; Bronze-winged, 194; Capuchins, 103; Carriers, 126; Collared Turtle, 174; Crested Marsh, 200, 211; Croppers, 121; Domestic, 86; Domestic and Wild, 150; Dovehouse, 15; Dragons, 125; Fancy, 16; Fantails, 86; Feral, 15; Foreign, 220; Frizzled, 141; Graceful Ground, 209; Harlequin Bronze-winged, 203, 205; Helms, 119; Horsemen, 126; Jacobines, 103; Jamaica, 220; Lace, 141; Laughing, 180; Long-tailed Senegal, 218; Lumachelle, 197; Mondains, 92; Nuns, 100; Owl, 108; Passenger, 215; Peacock, 90; Powders, 120; Ring Doves, 188; Rock, 13, 152; Runts, 92; Russian, 94; Senegal, 218; Shakers, 92; Spanish, 48; Speckled Dove, 209; Stock Doves, 187; Trumpeters, 98; Tumblers, 112; Turbits, 106; Turtle Doves, 189; Wild, 187; Wonga-Wonga, 192; Wood, 28.
- PIGEON-FANCIERS in ancient times, 16; and Pigeon-keepers, 104.
- PIGEON-FLESH a preventive of plague, 162.
- PIGEON-HOUSES, 3, 36, 44.
- PIGEON-LOFTS, 37.
- PIGEON-MATCHES defended, 168; at Paris, 171.
- PIGEON-RACES in Belgium, 136.
- PINTADO, or Guinea-fowl, 72.
- PLEASURE of keeping Pigeons, 2.
- PLINY on Pigeons, 17, 18.
- PLINY'S DOVES, 29.
- PLOVERS, 318.
- PLUMAGE, of Curassows, 241; Emeu, 372; Humming-birds, 8; Pigeons, 8; Water Hen, 287.
- POLE-HOUSE for Pigeons, 44.
- POWTERS, 120; called Croppers, 121; inflation of the crops of, 121; colours of, 123; anecdote of, 124; treatment of, when sick, 124; crosses of, 125.
- PRICES given for Fancy Pigeons, 18.
- PROPERTY in Pigeons protected, 48.
- PRUSSIAN GRENADIERS, 117.
- QUAILS, 374; anecdote, 386; in captivity, 382; mode of cooking, 390; immense flocks, 377; food, 387;

- migration, 376; monogamous, 384; note of, 375; supplied to the Israelites, 378; for the table, 392.
 QUAIL-FIGHTS, 390; mentioned by Shakspeare, 391.
 QUARRELS of Pigeons, 142.
 QUEEN, Dove presented to the, at Dublin, 185.
 RACES with Pigeons in Belgium, 136.
 RATS destroyed by Storks, 344.
 RED FEET OF PIGEONS, cause of, 11.
 RING DOVES, 188; migrations of, 189.
 ROCK PIGEONS, 13; not changed by being tamed, 15.
 ROGERS' lines on the Pigeon, 26.
 ROMAN Pigeon-fanciers, 18; mode of fattening Pigeons, 27.
 ROSS, SIR JOHN, 134.
 RUFFS, 103.
 RUNTS, 92; largest of domestic Pigeons, 92; termed Pigeons Mondains, 92; their weight, 93; their antiquity, 94; why called Russia-Pigeons, 94; the Campanian Pigeons of Pliny, 94; peculiarities of, 96; excellence for the table, 96; crosses with, 97; Leghorn, 147.
 RURAL POLICE, 448.
 RUSSIA-PIGEONS, 94.
 RUSSIAN veneration for Pigeons, 23.
 SALT, supply of, in the Dovecote, 42.
 SALT-CAT, recipe for, 42.
 SANDWICH ISLAND Goose, 426; Bernicle, 428.
 SEA-SIDE, haunts of the Blue Rock Pigeon, 157.
 SENEGAL DOVE, 218; song of, 219.
 SHAKERS, 89.
 SHAKSPEARE on Pigeons, 142, 145, 180.
 SICK POWTERS, treatment of, 124.
 SIEGE of Jerusalem, 25; of Harlem, 26.
 SMITERS, 122.
 SNIPES, 319.
 SPANISH Pigeon-breeder, 48.
 SPECKLED DOVE, 209; the smallest Pigeon existing, 210.
 SPOONBILLS, 320.
 SQUABS, newly hatched, 35, 58.
 ST. JOHN'S Tour in Sutherlandshire, 159.
 STOCK DOVES, 187.
 STORK, White, 314, 335; Indian, 315.
 STRAW BASKET, or pan, 40.
 STRUTHIOUS BIRDS, 362; plumage, 372.
 STURT's (Capt.) Expedition in Australia, 201, 203, 206, 311.
 SWEDEN, Storks in, 349.
 SYKES (Col.) on Quails, 379.
 SYLVIAE in captivity, 304.
 160; Bronze-winged Pigeons, 196; Crested Turkey, 275; Curassows, 242; domestic races of animals, 73; Fancy Pigeons, 75; Fantails, 90; Guans, 250, 254, 257; Pigeon-houses, 32; Quails, 374, 383.
 TENACITY OF LIFE in Pigeons, 89.
 THEORIES of French Naturalists, 73.
 TINUNCULUS, or Kestrel Hawk, 30.
 TITHES of Pigeons, 47.
 TRAP for Pigeon-loft, 37.
 TRASH, 104.
 TREATISE on Domestic Pigeons quoted, 40, 43, 98, 101, 107, 116, 119, 124, 133, 144.
 TRICKS of Tumbler Pigeons, 112.
 TRUMPETERS, 98, 149.
 TUMBLERS, 112; Almond, 115; excellence, 112; high prices, 112; Kites, 115; tricks, 112; performances, 114; practice tumbling, 118.
 TURBITS, 77, 106; termed Pigeon Cravate, 77, 107; colour, 108.
 TURKEY, Carrier Pigeons in, 133.
 TURTLE, collared, 174.
 TURTLE DOVES, 12, 189; Roman mode of fattening, 27.
 UDE, on Quails, 388.
 VARRO, on Carrier Pigeons, 19; on Dovecotes, 50; on Domestic Pigeons, 151.
 VENETIAN Pigeon-fanciers, 33.
 VENTRILOQUISM of Pigeons, 204.
 WADERS, in captivity, 313; their strange aspect, 316.
 WARFARE, use of Pigeons in, 24.
 WATER, supply of, in the Dovecote, 42.
 WATER BOTTLE, 43.
 WATER GUIDES in Australia, 196, 204.
 WATER-HENS, 280; anecdotes, 284, 288, 291; eggs, 296; in captivity, 291; mode of diving, 285; mode of running on the water, 285, 294; nesting-places, 295; paradoxical habits, 281; plumage, 287; post-mortem examination, 285; self-willed, 284.
 WATER RAIL, 319.
 WEIGHT of Pigeons, 93, 161.
 WHITE STORK, 314, 335; anecdote, 337; gratitude, 337; habits, 342; haunts, 348; virtues, 335.
 WIDOWED HEN PIGEON, 61.
 WILD PIGEONS, 187.
 WILD AND DOMESTIC PIGEONS, 150.
 WILLUGHBY on Fancy Pigeons, 89, 92, 103, 106, 115, 120, 121, 162, 173.
 WINDPIPES of the Guans, 248.
 WINGLESS BIRDS, 362.
 WISE PROVISIONS OF THE CREATOR, 64.
 WONDER-BIRDS of New Zealand, 362; may yet be extant, 366.

WONGA-WONGA PIGEON, 192.

WOOD PIGEONS, 28.

WORSHIP of Doves and Pigeons, 22.

YARMOUTH sailors, great Pigeon-fanciers, 95; boys, tricks of, 411.

YARRELL, on Curassows in England, 236; feathers, 59; Pigeons, 79.

YOUNG of domestic birds, 34; of

Pigeons, 35; of all animals wisely provided for, 64.

ZOOLOGICAL GARDENS (Surrey), 261.

ZOOLOGICAL SOCIETY, expected results of, 225; small practical utility of, 226; Curassows in the garden of, 236; Emeus, 369; Laughing Jack-ass, 312.

ERRATUM.

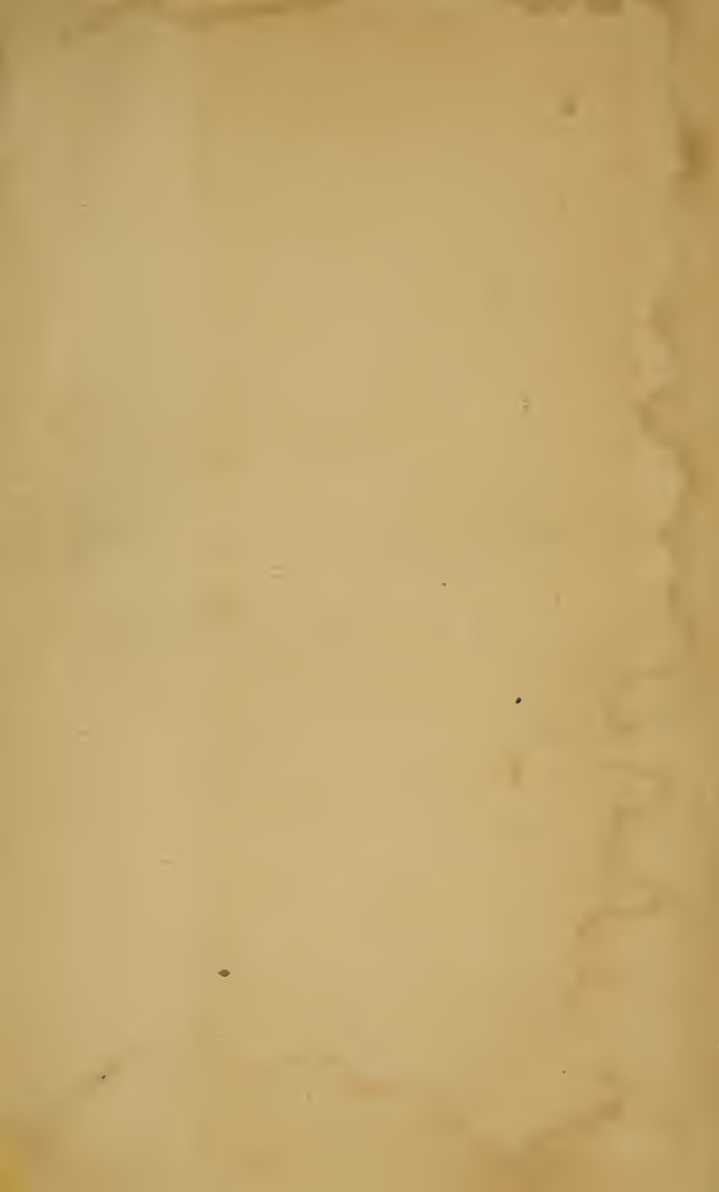
Page 77, last line but four, *for* orgin, *read* origin.

„ 364, *omit* line 2.

A Peculiar Religious Sect—A Peasant whose Conscience Made him Murder.

From the Pall Mall Gazette.

The Russian Government has been unsuccessful hitherto in its attempts to stamp out a religious sect known as the Skoptzi, or "white doves," the chief tenet of whose faith is the duty of celibacy. It is not very long since a large number of these people, including their chief, Koudrine, were put upon their trial, which exceeded in length, if not in interest, that of the "unhappy nobleman" to whom reference is occasionally made in the House of Commons; and now a fresh association of Skoptzi has been discovered in Southern Russia, and 300 of their number are about to be tried at Simpheropol. The strength of this sect is to be found in the wealth of several of its most zealous adherents, and in the mingled ignorance and superstition of the people among whom converts are sought. To illustrate this combination of two not very attractive qualities, the *St. Petersburg Journal* mentions a case recently tried at the Moscow assizes. A peasant, accused of murdering an old woman who was upon a pilgrimage, was asked by the Judge why he had committed the crime, and replied that he was driven to it by hunger. The Judge pointed out that the provisions which the victim had in her basket were not touched, upon which the prisoner exclaimed, in quite an indignant tone: "Do you take me for a heathen? It was a Friday, and you surely don't suppose I should eat meat on that day?" It is upon imaginations such as these that the Skoptzi work, and the number of conversions which they effect is so great that the Government is getting alarmed as to their progress. Each section has its prophet, who presides at the religious meetings, which are not held upon any fixed day or at any particular place, in order the more effectually to elude discovery. The service takes place at night, and commences by the singing of hymns composed by the prophet and committed to heart by his congregation. Men and women take it in turns to sing, after which they dance until they are exhausted. The Greek Church they consider to be the receptacle of every sort of sin, and is termed by them the "Church of Babylon;" but some of the Russian emperors, including Paul I. and Alexander I., and also the Empress Elizabeth, are claimed as members of their sect and raised to the rank of saints. They reject the sacraments, and express their opinions of priests by the saying that ample sleeves—the Russian priests wear them very large—hide a deceitful mind. Neophytes are only admitted after the celebration of elaborate rites, chief among which are invocations to their saints, and especially to Akoulina Fvanovna, their Holy Virgin. After this singing and dancing take place, as at the ordinary religious meetings, the prophet puts on white stockings, and, with a Bible in his hand, prays for strength to work miracles. He then tells different members of the congregation what fate is in store for them. These doctrines may seem more ludicrous than baneful; but they are said to be accompanied by other practices of the grossest immorality.





gift,

